Primary Structure of Human Carcinoembryonic Antigen (CEA) Deduced from cDNA	
Sequence Shinzo Oikawa, Hiroshi Nakazato, and Goro Kosaki	511
Nonradioactive Hybridization Probes Prepared by the Reaction of Biotin Hydrazide with	
DNA Avi Reisfeld, Jeffrey M. Rothenberg, Edward A. Bayer, and Meir Wilchek	519
Increased Adenylate Cyclase Activity in Rat Thyroid Epithelial Cells Expressing Viral ras	
Genes A. Spina, A. Di Donato, G. Colella, G. Illiano, M. T. Berlingieri,	
	527
Differential Expression of Fibrillar Collagen Genes during Callus Formation	321
	F3.6
	536
Heparin Induces Specific Protein Release from Human Intestinal Smooth Muscle Cells	
David L. Cochran, Hilary A. Perr, Martin F. Graham, and Robert F. Diegelmann	542
Irreversible Inactivation of Lactoperoxidase in the Course of Iodide Oxidation	
Herbert Jenzer, Ulrich Bürgi, and Heinz Kohler	552
A Novel Protein Kinase Activity in Rabbit Gastric Gland Cytosol	332
	550
James R. Goldenring, Margret Oddsdottir, and Irvin M. Modlin	559
In Vitro Modulation of Protein Kinase C Activity by Environmental Chemical Pollutants	
R. R. Shukla and P. W. Albro	567
Evidence for a Role of a Vicinal Dithiol in Catalysis and Proton Pumping in Mitochondrial	
Nicotinamide Nucleotide Transhydrogenase B. Persson and J. Rydström	573
Stimulation of Cytosolic Free Calcium and Inositol Phosphates by Prostaglandins in	
Cultured Rat Mesangial Cells Paolo Mené, George R. Dubyak,	
···, ··· g· ··· ··· ;····,	579
Membrane-Bound Phosphotyrosyl-Protein Phosphatase Activity in Human Erythrocytes:	317
Dephosphorylation of Membrane Band 3 Protein	
	507
A Novel Prophenia Property Costs and Vision Costs and Vis	587
A Novel Proenkephalin-Processing Carboxypeptidase and Its Activation by Cyclic-AMP-	
Dependent Protein Kinase Hiroshi Ueda, Nobuyuki Fukushima,	
	595
Leupeptin and Chymostatin Inhibit Mammalian Protein Methylesterase Activity	
Kannappan Veeraragavan and Claude Gagnon	603
Solubilization of Novel Binding Sites for [3H]Glutamate in Rat Adrenal	
	609
Cloning and Sequence Analysis of Bovine β-Casein cDNA	
	617
i wyddi dinienet I toros, 10wig C. Hang, and 10m Renardson	017
Volume 142, Number 3, February 13, 1987	
AUTHOR INDEX Volume 142 Number 2 Estimated 1007	
AUTHOR INDEX, Volume 142, Number 3, February 13, 1987	ii
Decrease in the Levels of a Constitutive Cytochrome P-450 (RLM5) in Hepatic	
Microsomes of Diabetic Rats Leonard V. Favreau and John B. Schenkman	623
NAD ⁺ -Mediated Stimulation of Adenylate Cyclase in Cardiac Membranes	
Arthur M. Feldman, Michael A. Levine, Kenneth L. Baughman,	
and Cornelis Van Dop	631
Effects of Platelet-Activating Factor on the Chemotaxis of Normodense Eosinophils from	
Normal Subjects Naohiko Tamura, Devendra K. Agrawal,	
Fawzi A. Suliaman, and Robert G. Townley	638
Redistribution of Phospholipid/Ca ²⁺ -Dependent Protein Kinase in Mast Cells Activated by	050
Various Agonists Seiji Nagao, Koh-ichi Nagata, Yohko Kohmura,	
	615
Tatsuo Ishizuka, and Yoshinori Nozawa	645
The Calcium-Mobilizing and Tumor-Promoting Agent, Thapsigargin, Elevates the Platelet	
Cytoplasmic Free Calcium Concentration to a Higher Steady-State Level: A Possible	
Mechanism of Action for the Tumor Promotion	
Ole Thastrup, Birthe Foder, and Ole Scharff	654

Table	of	Contents

MS and NMR Analysis of the Cross-Reacting Determinant Glycan from Irypanosoma	
brucei brucei MITat 1.6 Variant Specific Glycoprotein Brigitte Schmitz,	
Roger A. Klein, Imogen A. Duncan, Heinz Egge, Johannes Gunawan,	
	1055
Ornithine Transcarbamylase Deficiency in spf and spf-ash Mice: Genes, mRNAs, and	
mRNA Precursors Akira Ohtake, Masaki Takayanagi, Shigenori Yamamoto,	
Hironori Nakajima, and Masataka Mori	1064
	1004
Stereospecific Recognition Sites for [3H]Inositol(1, 4, 5)trisphosphate in Particulate Prepa-	
rations of Rat Cerebellum A. L. Willcocks, A. M. Cooke, B. V. L. Potter,	
and S. R. Nahorski	1071
5'-Adenosine Monophosphate Inhibits Ternary Complex Formation by Rat Liver eIF-2	
Vicente Felipo and Santiago Grisolía	1079
Chloroform Markedly Stimulates the Phosphorylation of Myelin Basic Proteins	
Jeffrey B. Ulmer and Peter E. Braun	1084
Folylpolyglutamates in Leishmania major Daniel V. Santi, Patricia A. Nolan,	
and Barry Shane	1080
	1007
Reversion of 7-Methylguanosine 5'-Phosphate Inhibition of mRNA Translation by Poly-	
somal and Soluble Factors Isolated from Saccharomyces cerevisiae	
Antonio Parets Soler, Jesus Zueco, Daniel Gozalbo, and Rafael Sentandreu	1093
Receptors for Transferrin and Transcobalamin II Display Segregated Distribution on	
Microvilli of Leukemia L1210 Cells Takumi Kishimoto, Mehdi Tavassoli,	
Ralph Green, and Donald W. Jacobsen	1102
Interaction of Dimers of Inactive Enkephalin Fragments with μ Opiate Receptors	
Yasuyuki Shimohigashi, Tomio Ogasawara, Takuya Koshizaka, Michinori Waki,	
Tasuyuki Shimonigushi, Tomo Ogasawara, Takaya Rosinzuka, Tatchinori rraki,	1100
Tetsuo Kato, Nobuo Izumiya, Masayasu Kurono, and Kunio Yagi	11109
UV Immobilized Phospholipid Bilayers E. E. Uzgiris	1110
Induction of Angiogenesis by Mixtures of Two Angiogenic Proteins, Angiogenin and Acidic	
Fibroblast Growth Factor, in the Chick Chorioallantoic Membrane	
	1122
Fibronectin Is Stored but Not Synthesized in Mature Human Peripheral Blood Granulocytes	
	1132
Surface Diffusion in Human Serum Lipoproteins Robert J. Cushley,	
W. Dale Treleaven, Yashpal I. Parmar, Ravinder S. Chana, and David B. Fenske	1139
Evidence for a Direct Role of the DNA Polymerase γ in the Replication of the Human	1107
	1116
Mitochondrial DNA in Vitro Patrick Lestienne	1140
Rat IGF-I cDNAs Contain Multiple 5'-Untranslated Regions	
Charles T. Roberts, Jr., Stephen R. Lasky,	
	1154
Transcriptional Control of the Inducible Nitrate Reductase Isoform from Soybeans	
John Smarrelli, Jr., Mark J. Malone, Michelle T. Watters, and Luke T. Curtis	1160
Cholesterol Hydroperoxides Inhibit Calmodulin and Suppress Atherogenesis in Rabbits	
Carl L. Tipton, Pak C. Leung, Joni S. Johnson,	
Robert J. Brooks, and Donald C. Beitz	1166
The "Manganese(III)-Containing" Purple Acid Phosphatase from Sweet Potatoes Is an Iron	1100
	1172
Enzyme Susan K. Hefter and Bruce A. Averill	11/3
Partial Characterization of GTP-Binding Proteins in Neurospora Kohji Hasunuma,	
Yukie Miyamoto-Shinohara, and Kazuhiko Furukawa	1178
Target Tissue Distribution of the Proenkephalin Peptides F, E, and B	
Gil E. Katzenstein, Debra Lund, Pennie Schultz, and Randolph V. Lewis	1184
O ₂ Photogenerated from Aqueous Solutions of Tetracycline Antibiotics (pH 7.3) as Evi-	
denced by DMPO Spin Trapping and Cytochrome c Reduction Anson S. W. Li,	
H. Peter Roethling, Kiran B. Cummings, and Colin F. Chignell	1191
Evidence for Two Uroporphyrinogen Decarboxylase Isoenzymes in Human Erythrocytes	
S. K. Mukerji and N. R. Pimstone	1106
D. A. Mureiji ana N. I illistone	1170

Growth Stimulation of Human Melanocytes: Identification and Characterization of Melanoma-Derived Melanocyte Growth Factor (M-McGF) Shunichiro Ogata,	
Yoshihito Furuhashi, and Magdalena Eisinger Topological Studies on Rat Liver Microsomal Cholesterol Ester Hydrolase	
C. J. Fernandez, M. Lacort, J. M. Gandarias, and B. Ochoa Synthesis of Hemopexin and Cysteine Protease Inhibitor Is Coordinately Regulated by	1212
HSF-II and Interferon-β2 in Rat Hepatoma Cells Heinz Baumann and Ursula Muller-Eberhard	1218
The Human β_3 Alcohol Dehydrogenase Subunit Differs from β_1 by a Cys for Arg-369 Substitution Which Decreases NAD(H) Binding Joe C. Burnell, Lucinda G. Carr, Francis E. Dwulet, Howard J. Edenberg,	1007
Ting-Kai Li, and William F. Bosron Hydroxylamine-Stable Covalent Linkage of Myristic Acid in $G_0\alpha$, a Guanine Nucleotide-Binding Protein of Bovine Brain Alan M. Schultz, Su-Chen Tsai,	
Hsiang-Fu Kung, Stephen Oroszlan, Joel Moss, and Martha Vaughan Angiogenin mRNA in Human Tumor and Normal Cells Susanna M. Rybak,	1234
James W. Fett, Qi-Zhi Yao, and Bert L. Vallee Degradation of Proteins with Blocked Amino Groups by Cytoplasmic Proteases	1240
Koko Murakami and Joseph D. Etlinger Highly Sensitive Muscarinic Receptors in the Cerebellum Are Coupled to Prostaglandin	1249
Formation Melvin Reichman, Wu Nen, and Lowell E. Hokin	1256
Up and Down Regulation of Serine Esterase Release from Mouse Cytotoxic T Lymphocytes by Tumor-Promoting Phorbol Ester Takashi Nishimura and Tsunetoshi Ito	1262
The Structural Study of Internal [2+2] Photodimers of the Derivatives of 1,1'-Trimethylene- bis(5-fluoro)uracil H. Koroniak, H. Wójtowicz, and K. Golankiewicz	1270
Kinetics of Suicide Substrate: Enzyme Inactivation: Methylenecyclopropaneacetyl-CoA and General Acyl-CoA Dehydrogenase John E. Baldwin and David W. Parker	1277
The Application of ¹ H/ ¹³ C Inversely Correlated NMR Spectroscopy to the Determination of Acylation and Glycosylation Sites in the O-Specific Polysaccharide from <i>Hafnia</i>	
alvei 1187 Janusz Dabrowski, Michael Hauck, Elzbieta Romanowska, and Adrzej Gamian	1283
Stimulation of ACTH Release by Human Interleukin- 1β , but Not by Interleukin- 1α , in	1203
Conscious, Freely Moving Rats Akira Uehara, Paul E. Gottschall, Raymond R. Dahl, and Akira Arimura	1286
Evidence for the Existence of Three Chick Lung Tropoelastins Celeste B. Rich and Judith Ann Foster	1291
Reversible Activation of NADPH Oxidase in Membranes of HL-60 Human Leukemic Cells Roland Seifert and Günter Schultz	1296
Animal Viruses Promote the Entry of Polysaccharides with Antiviral Activity into Cells Ma Eugenia González and Luis Carrasco	
Isolation of the Candida tropicalis Gene for P-450 Lanosterol Demethylase and Its Expression in Saccharomyces cerevisiae Chien Chen, Thomas G. Turi,	
Apocytochrome c Competes with Pre-ornithine Carbamoyltransferase for Transport into Mitochondria C. González-Bosoh, V. J. Miralles, J. Hernández-Yago,	
and S. Grisolia Evidence for Cytochrome P-450-Mediated Oxidation of Uroporphyrinogen by Cell-Free Liver Extracts from Chick Embryos Treated with 3-Methylcholanthrene	1318
P. Sinclair, R. Lambrecht, and J. Sinclair Effect of 1,25(OH) ₂ Vitamin D ₃ and Ionized Ca ²⁺ on ⁴⁵ Ca Uptake by Primary Cultures of	1324
Aortic Myocytes of Spontaneously Hypertensive and Wistar Kyoto Normotensive Rats	1220
Richard D. Bukoski, Hong Xue, and David A. McCarron Thyroid Hormone Stimulates Rat Pro-natriodilatin mRNA Levels in Primary Cardiocyte	
Cultures Stephania Argentin, Jacques Drouin, and Mona Nemer	1336

Differential Racemization of Aspartate and Serine in Human Myelin Basic Protein Raymond Shapira and C. H. Jen Chou	13/12
Pituitary Cells Secrete Calcitonin in the Reverse Hemolytic Plaque Assay	
L. J. Deftos	1330
Cellular Progesterone Receptor Phosphorylation in Response to Ligand Activating Protein Kinases Kanury V. S. Rao, Wilbur D. Peralta, Geoffrey L. Greene,	
Kinases Kanury V. S. Rao, Wilbur D. Peralta, Geoffrey L. Greene, and C. Fred Fox	1357
A Monoclonal Antibody Directed against the Head Region of Vimentin	
M. Schmidt, H. Ponstingl, and F. A. Bautz	1300
Reversible Conversion of Tyrosine Hydroxylase to an Inactive Form by Antipain Sachiko Okuno and Hitoshi Fujisawa	1375
Stimulation of FSH Release by Erythroid Differentiation Factor M. Kitaoka, N. Yamashita, Y. Eto, H. Shibai, and E. Ogata	1382
Linkage between Neutrophil Degranulation and Calcium Discharge B. Styrt,	
M. A. Schwartz, and M. S. Klempner	1300
Light Induces a Rapid and Transient Increase in Inositoltrisphosphate in Toad Rod Outer Segments Joel E. Brown, Christine Blazynski, and Adolph I. Cohen	1302
	1392
Mechanisms of the mAb ALB6(CD9) Induced Human Platelet Activation: Comparison with Thrombin F. Rendu, C. Boucheix, M. Lebret, N. Bourdeau, P. Benoit,	
	1397
Effects of Bovine Inhibin, Transforming Growth Factor- β , and Bovine Activin-A on Gran-	1371
ulosa Cell Differentiation Laura A. Hutchinson, Jock K. Findlay,	
Fiona L. de Vos, and David M. Robertson	1405
Membrane Stabilization of Vitamin E: Interactions of α-Tocopherol with Phospholipids in	
Bilayer Liposomes Shiro Urano, Mami Iida, Ikuko Otani,	
and Mitsuyoshi Matsuo	1413
Phospholipase C Activation and Diacylglycerol Kinase Inactivation Lead to an Increase in	
Diacylglycerol Content in Spontaneously Hypertensive Rats Hiroyuki Kata	
and Tadaomi Takenawa	1419
Mechanism of Inhibition of Herpes Simplex Virus Replication by Δ ⁷ -Prostaglandin A ₁ and	
Δ^{12} -Prostaglandin J_2 Naohiko Yamamoto, Masanori Fukushima,	
	1425
Characterization of a Protein Containing D-Aspartic Acid in Aged Mouse Lens	
Shiro Muraoka, Noriko Fujii, Itsuro Tamanoi, and Kaoru Harada	1432
Variation in the Molecular Mass of the Ah Receptor among Vertebrate Species and Strains	4.400
of Rats Alan Poland and Edward Glover	1439
Three Types of Ion Channels Are Present on the Plasma Membrane of Friend Erythro-	
leukemia Cells A. Arcangeli, E. Wanke, M. Olivotto, S. Camagni, and A. Ferroni	1.450
	1430
The Effect of DMSO on Natural DNA Conformation in Enhancing Transcription Jin-Kai Juang and Hon-Ju Liu	1/50
Presence of Atrial Natriuretic Polypeptide in the Pulmonary Vein and Vena Cava	1430
Junko Asai, Masamitsu Nakazato, Hirotaka Toshimori,	
Shigeru Matsukura, Kenji Kangawa, and Hisayuki Matsuo	1465
Gaba-Stimulated ³⁶ Cl ⁻ Influx into Reconstituted Vesicles with Purified Gaba _A /Benzo-	1705
diazepine Receptor Complex Masaaki Hirouchi, Jun-ichi Taguchi,	
Tsuyoshi Ueha, and Kinya Kuriyama	1471
Transmembrane Receptor Cross-Talk: Concurrent VIP and α_1 -Adrenergic Activation	
Rapidly Elevates Pinealocyte cGMP > 100-Fold Anthony K. Ho,	
Constance L. Chik, and David C. Klein	1478
Sequence of Membrane-Associated Thyroid Hormone Binding Protein from Bovine Liver:	
Its Identity with Protein Disulfide Isomerase Kiyoshi Yamauchi,	
Tadashi Yamamoto, Hiroaki Hayashi, Sakuji Koya, Hiroo Takikawa,	
Kumao Toyoshima, and Ryuya Horiuchi	1485

Isolation and Structure of an Epidermal Mitosis Inhibiting Pentapeptide	
K. L. Reichelt, K. Elgjo, and P. D. Edminson	1493
Antiestrogens Inhibit the Mitogenic Effect of Growth Factors on Breast Cancer Cells in the	
Total Absence of Estrogens F. Vignon, MM. Bouton, H. Rochefort,	
and Roussel Uclaf	1502
Improvements of Western Blotting to Detect Monoclonal Antibodies	
Marco Bestagno, Antonella Cerino, Silvano Riva, and Giulia C. B. Astaldi Ricotti	
Gossypol Mediated DNA Degradation A. K. Srivastava and G. Padmanaban	1515
Mapping Structurally Perturbed Sites in DNA by Replication Arrest and Run-Off	
Replication Yue Wang and Walter Sauerbier	1523
ERRATUM	
Volume 145, Number 2, June 16, 1987: V. N. Balaji, Salvatore Profeta, Jr., and	
Stephen W. Dietrich, "Mean Geometry of the Thiopeptide Unit and Conforma-	
tional Features of Dithiopeptides and Polythiopeptides," pp. 834–841	1531
Author Index for Volume 146	
Author maex for volume 140	1532
Volume 147, Number 1, August 31, 1987	
AUTHOR INDEX, Volume 147, Number 1, August 31, 1987	iii
Selective Elevation of c-myc Transcript Levels in the Liver of the Aging Fischer-344 Rat	
Martha F. Matocha, James W. Cosgrove, John R. Atack, and Stanley I. Rapoport	1
Regulatory Functions of Cyclic Adenosine 3',5'-Monophosphate in 1-Methyladenine	
Production by Starfish Follicle Cells M. Mita, N. Ueta, and Y. Nagahama	8
The Binding of Ca ²⁺ to Ca ²⁺ -Transporting Microsomes Derived from Bovine Uterine	0
Sarcoplasmic Reticulum Jordan D. Miller and Mary E. Carsten	12
1-O-Alkyl-2-N-methylcarbamylglycerophosphocholine: A Biologically Potent, Nonmeta-	13
holiophle Applica of District Activating France Activating France Activating France	
bolizable Analog of Platelet-Activating Factor Joseph T. O'Flaherty, Joseph T. O'Flaherty,	
J. F. Redman, Jr., Jeffrey D. Schmitt, J. Marshall Ellis, Jefferson R. Surles,	10
Michael H. Marx, Claude Piantadosi, and Robert L. Wykle	18
Interference of Retinoic Acid Binding to Its Binding Protein by Omega-6 Fatty Acids	25
Brahma P. Sani, Roger D. Allen, Candace M. Moorer, and Barrett W. McGee	25
Oxygen Bonding in Human Hemoglobin and Its Isolated Subunits: A XANES Study	
A. Congiu-Castellano, A. Bianconi, M. Dell'Ariccia,	
S. Della Longa, A. Giovannelli, E. Burattini, and M. Castagnola	31
Interleukin-1 Derived from Human Monocytic Leukemia Cell Line JOSK-I Acts as an	
Autocrine Growth Factor Yusuke Furukawa, Masatsugu Ohta,	
Yasusada Miura, and Masaki Saito	39
Two Domains in α Interferons Influence the Efficacy of the Antiviral Response	
Ellen C. Zwarthoff, Annemiek Gennissen, I. Jaap Bosveld,	
Jan Trapman, and Margreet van Heuvel	47
Increased Membrane-Associated Phorbol-12,13 Dibutyrate (PDBu) Receptor Function in	
Sickle Red Cells M. Ramachandran, C. N. Nair, and E. C. Abraham	56
A Rapid Affinity Method for Isolation and Characterization of Sequence Specific DNA	
Binding Factor R. P. Singh and V. Natarajan	65
Porcine Polymorphonuclear Leukocyte NADPH-Cytochrome c Reductase Generates	
Superoxide in the Presence of Cytochrome b_{559} and Phospholipid	
Fumio Sakane, Hiroyuki Kojima, Kazuhiko Takahashi, and Jiro Koyama	71
Stimulation of DNA Synthesis in Primary Cultures of Adult Rat Hepatocytes by Sodium	
Butyrate Jeffrey L. Staecker, Norimasa Sawada, and Henry C. Pitot	78
Stimulation of Prostaglandin E ₂ and Thromboxane B ₂ Production by Human Monocytes in	
Response to Interleukin-2 D. G. Remick, J. W. Larrick, D. T. Nguyen,	
and S. L. Kunkel	86
4-Aminopyridine Inhibits Synaptosomal Plasma Membrane Protein Phosphorylation in	
Vitro: Effect of the Selective NMDA-Antagonist 2-Amino-5-phosphonovalerate	
F. M. J. Heemskerk, L. H. Schrama, P. N. E. de Graan, and W. H. Gispen	94

Charles F. Burant, Mary K. Treutelaar, Katherine D. Allen,

Donald A. Sens, and Maria G. Buse

Hisamaru Hirai, Junji Nishida,

and Fumimaro Takaku

100

108

and L-6 Myocytes

Using in Vivo Selection Assays

Protein Valerie L. Vaughn, Rong Wang, Catherine Fenselau,	
and Harold B. White III	115
Quantitation of Intracellular Free Calcium in Single Adult Cardiomyocytes by Fura-2 Fluorescence Microscopy: Calibration of Fura-2 Ratios	
Qian Li, Ruth A. Altschuld, and Bradford T. Stokes	120
Modified Ganglioside as a Possible Modulator of Transmembrane Signaling Mechanism	
through Growth Factor Receptors: A Preliminary Note Nobuo Hanai,	
Gustavo Nores, Carmen-Rosa Torres-Mendez, and Sen-itiroh Hakomori	127
Identification of an Atrial Natriuretic Peptide Specific Receptor in Human Kidney	
Yoshihiro Ishikawa, Satoshi Umemura, Gen Yasuda, Kazuo Uchino,	
Tadashi Shindou, Kosuke Minamizawa, Yoshiyuki Toya, and Yoshihiro Kaneko	135
Mechanisms for the Stimulatory and Inhibitory Effects of Carbamoylcholine on Canine	
Gastric D-Cells Tsutomu Chiba and Tadataka Yamada	140
Ethanol Inhibits Dual Receptor Stimulation of Pineal cAMP and cGMP by Vasoactive	
Intestinal Peptide and Phenylephrine Constance L. Chik, Anthony K. Ho,	
and David C. Klein	145
Effects of Chronic Allopurinol Therapy on Purine Metabolism in Duchenne Muscular	
Dystrophy M. Castro-Gago, S. Lojo, I. Novo, R. del Rio,	
J. Peña, and S. Rodríguez-Segade	152
Effects of Gluconeogenic Hormones on Insulin Binding in Intact Human Red Blood Cells	
Lebogang Mokoena, Mariane Alberts, and Errol Tyobeka	158
Synthetic Segments of the Mammalian β AR Are Preferentially Recognized by cAMP-	
Dependent Protein Kinase and Protein Kinase C Allan D. Blake,	
Richard A. Mumford, H. Vincent Strout, Eve E. Slater, and Catherine D. Strader	168
α-Lactalbumin Acts as a Bimodal Regulator of Rat Parotid Acinar Cell Growth	
Michael G. Humphreys-Beher, Charlotte A. Schneyer, and Tivadar Zelles	174
Calcium Mobilization by Muscarinic Receptors in Human Astrocytoma Cells:	
Measurements with Quin 2 L. Noronha-Blob, C. Richard,	
and D. C. U'Prichard	182
Bombesin-like Peptides Elevate Cytosolic Calcium in Small Cell Lung Cancer Cells	100
Terry W. Moody, Anne Murphy, Samira Mahmoud, and Gary Fiskum	189
Characterization and Cloning of Androgen-Repressed mRNAs from Rat Ventral Prostate	100
Jocelyne G. Léger, Michael L. Montpetit, and Martin P. Tenniswood	196
Synthetic C-Terminal Peptide of IL-1 Functions as a Binding Domain as well as an	204
Antagonist for the IL-1 Receptor Edmund W. Palaszynski	204
Carcinoembryonic Antigen (CEA) and Two Crossreacting Antigens of 165 and 105 kDa	
Isolated from Meconium Exhibit Identical Amino Terminal Sequences	
Dietrich Siepen, Raymond J. Paxton, Michael Neumaier, John E. Shively, and Christoph Wagener	212
	212
The Induction of Ornithine Decarboxylase by the Tumor Promoter TPA Is Controlled at the Post-transcriptional Level in Murine Swiss 3T3 Fibroblasts	
Stefan Rose-John, Gabriele Rincke, and Friedrich Marks	219
Ontogenically Regulated Expression of Metallothionein and Its Messenger RNA in Chick	217
Liver Tushar Chakraborty and B. B. Biswas	226
· · · · · · · · · · · · · · · · · · ·	220
A Malonyl-CoA-Binding Protein from Liver Richard E. Dugan, Bengt R. Osterlund, Roger F. Drong, and Theresa L. Swenson	234
Ovarian Epidermal Growth Factor-like Activity: Concentrations in Porcine Follicular Fluid	254
during Follicular Enlargement	
Ching-Ju Hsu, Stephen D. Holmes, and James M. Hammond	242
liv	
iiv	

Comparison of Insulin and Insulin-like Growth Factor I Receptors from Rat Skeletal Muscle

Highly Frequent Detection of Transforming Genes in Acute Leukemias by Transfection

Phosphorylation Heterogeneity of Tryptic Phosphopeptides of Chicken Riboflavin-Binding

Monoclonal Antibody C3.1 Is a Platelet-Derived Growth Factor Antagonist Rodney S. Kawahara, Barbara B. Kennedy, and Thomas F. Deuel	839
Limited Proteolysis of Gap Junction Protein Is Intrinsic in Mammalian Lens Fiber-Cell	
Plasma Membranes Jose Alcala, David Putt, and Harry Maisel Ten to Fourteen Residue Peptides of Alzheimer's Disease Protein Are Sufficient for Amyloid Fibril Formation and Its Characteristic X-Ray Diffraction Pattern	846
P. D. Gorevic, E. M. Castano, R. Sarma, and B. Frangione Calcium-Dependent Phosphorylation of the Amphibian Oocyte Plasma Membrane: An Early Event in Initiating the Meiotic Divisions Adele B. Kostellow,	854
Eilene Jea Chien, and Gene A. Morrill Activation Mechanism of the N-ras Oncogene in Human Leukemias Detected by Synthetic	863
Oligonucleotide Probes Junji Nishida, Hisamaru Hirai, and Fumimaro Takaku An in Vivo Model for Study of the Angiogenic Effects of Basic Fibroblast Growth Factor	870
A. Hayek, F. L. Culler, G. M. Beattie, A. D. Lopez, P. Cuevas, and A. Baird	876
Volume 147, Number 3, September 30, 1987	
AUTHOR INDEX, Volume 147, Number 3, September 30, 1987	iii
In Vivo Formation of Hepoxilin A3 in the Rat C. R. Pace-Asciak, S. P. Lee, and J. M. Martin	881
Accumulation of a Glycine Rich Protein in Auxin-Deprived Strawberry Fruits	
A. S. N. Reddy and B. W. Poovaiah Amide Proton Exchange Rates of a Bound Pepsin Inhibitor Determined by Isotope-Edited	885
Proton NMR Experiments Stephen W. Fesik, Jay R. Luly, Herman H. Stein,	
and Nwe BaMaung	892
A Novel Role of Fatty Acid-Binding Protein as a Vehicle of Retinoids Fumio Fukai,	
Toshiya Kase, Takayo Shidotani, Toshihiko Nagai, and Takashi Katayama	899
Heat Shock Induces Peroxidase Activity in Neurospora crassa and Confers Tolerance	
toward Oxidative Stress M. Kapoor and J. Lewis	904
Differential Expression of Multiple Protein Kinase C Subspecies in Rat Central Nervous Tissue Mark S. Shearman, Zvi Naor, Ushio Kikkawa, and Yasutomi Nishizuka	911
N-Glycansulfated Fibronectin: One of the Several Sulfated Glycoproteins Synthesized by	711
Endothelial Cells in Culture P. Colburn, V. Buonassisi, C. P. Dietrich,	
and H. B. Nader	920
Phosphorylation of the Lysosomal Enzyme Binding Receptor Protein from Monkey Brain	720
and Evidence for a Tyrosine Kinase Activity Associated with It	
K. Panneerselvam, S. Ramamoorthy, and A. S. Balasubramanian	927
Hormonal Regulation of Serum α_1 -Antitrypsin and Hepatic α_1 -Antitrypsin mRNA in Rats	/=.
Sarah Jane Schwarzenberg, Harvey L. Sharp, Susan A. Berry,	
Robin D. Manthei, and Steven Seelig	936
Dexamethasone Effects on Somatostatin Receptors in Pancreatic Acinar AR4-2J Cells	,,,,
Nathalie Viguerie, Jean-Pierre Estève, Christiane Susini, Craig D. Logsdon,	
Nicole Vaysse, and André Ribet	942
HPLC-Purified [2-125] Iodomelatonin Labels Multiple Binding Sites in Hamster Brain	,.2
L. P. Niles, D. S. Pickering, and B. G. Sayer	949
Bovine Adrenal Chromaffin Granules Are a Site of Synthesis of Atrial Natriuretic Factor	
H. Ong, C. Lazure, T. T. Nguyen, N. McNicoll, N. Seidah,	
M. Chrétien, and A. De Léan	957
Stable Transfer of a Mouse Dihydrofolate Reductase Gene into a Deficient Cell Line Using	
Human Adenovirus Vector Goutam Ghosh-Choudhury and Frank L. Graham	964
New Tester Strains of Salmonella typhimurium Highly Sensitive to Mutagenic Nitroarenes	
Masahiko Watanabe, Takehiko Nohmi, and Motoi Ishidate, Jr.	974
Plasmid DNA Adsorbed to pH-Sensitive Liposomes Efficiently Transforms the Target Cells	
Chen-Yen Wang and Leaf Huang	980
In Vivo Phosphorylation of Titin and Nebulin in Frog Skeletal Muscle	
Laura L. Somerville and Kuan Wang	986

Substrate-Specific Stimulation of Protein Kinase C by Polyvalent Anions	
Mohammad D. Bazzi and Gary L. Nelsestuen	248
In Vitro Methane and Methyl Coenzyme M Formation from Acetate: Evidence That Acetyl-	
CoA Is the Required Intermediate Activated Form of Acetate	
David A. Grahame and Thressa C. Stadtman	254
Peroxide(s) of Vanadium: A Novel and Potent Insulin-Mimetic Agent Which Activates the	
Insulin Receptor Kinase Satoru Kadota, I. George Fantus,	
Guy Deragon, Harvey J. Guyda, Bonnie Hersh, and Barry I. Posner	259
Apparent Cathepsin B Deficiency in Neuronal Ceroid Lipofuscinosis Can Be Explained by	
Peroxide Inhibition Glyn Dawson and Paul Glaser	267
High Production of Type VI Collagen in Multiple Fibromatosis with Multiple Articular	
Dysplasia Katsumi Murata, Tamaki Motoyama, Masahiro Suka,	
Mikio Ohno, and Yoshinori Kuboki	275
Conversion of Leukotriene C ₄ to Leukotriene D ₄ by a Cell-Surface Enzyme of Rat	
Macrophages Isao Nagaoka and Tatsuhisa Yamashita	282
Antisense RNA to the c-fos Gene: Restoration of Density-Dependent Growth Arrest in a	
Transformed Cell Line Dan Mercola, Ann Rundell, John Westwick,	
and Steven A. Edwards	288
The Purification and Subunit Structure of a Membrane-Bound ATPase from the	
Archaebacterium Halobacterium saccharovorum	
Lawrence I. Hochstein, Hordur Kristjansson, and Wijaya Altekar	295
Binding of Non-histone Chromosomal Protein HMG1 to Histone H3 in Nucleosomes	
Detected by Photochemical CrossLinking Michal Štros	301
The Actions of Arginine and Glucose on Glucagon Secretion Are Mediated by Opposite	
Effects on Cytoplasmic Ca ²⁺ Hans Johansson, Erik Gylfe, and Bo Hellman	309
Purification and Characterization of Recombinant Human Interleukin-1\beta Produced in	
Escherichia coli Yoshikazu Kikumoto, Yeong-Man Hong,	
Tsutomu Nishida, Satoru Nakai, Yoshihiro Masui, and Yoshikatsu Hirai	315
Specific Inhibitors of Tyrosine-Specific Protein Kinase, Synthetic 4-Hydroxycinnamamide	
Derivatives Tadayoshi Shiraishi, Takeshi Domoto, Naohiro Imai,	
Yoshio Shimada, and Kiyoshi Watanabe	322
Investigation of Conformational Changes in Yeast Enolase Using Dynamic Fluorescence	
and Steady-State Quenching Measurements	
John M. Brewer, Phillippe Bastiaens, and John Lee	329
Subset Characteristics of DNA Sequences Involved in Tight DNA/Polypeptide Complexes	
and Their Homology to Nuclear Matrix DNA	
Beatrice Neuer-Nitsche and Dieter Werner	335
Radiolabeling of DNA/Polypeptide Complexes in Isolated Bulk DNA and in Residual	
Nuclear Matrix DNA by Nick-Translation Dieter Werner and Roland Rest	340
Establishment of a New Short, Protease-Resistant, Affinity Labeling Reagent for the	
Cholecystokinin Receptor Randall K. Pearson, Stephen P. Powers,	
Elizabeth M. Hadac, Herbert Gaisano, and Laurence J. Miller	346
Evidence for the One-Electron Oxidation of 1-Methyl-4-phenyl-2,3-dihydropyridinium	
(MPDP ⁺) W. Korytowski, C. C. Felix, and B. Kalyanaraman	354
Oscillatory Motion in Human Neutrophils Responding to Chemotactic Stimuli	
Matthias P. Wymann, Peter Kernen, David A. Deranleau, Beatrice Dewald,	
Vinzenz von Tscharner, and Marco Baggiolini	361
Immunochemical Probing of the N-Terminus of the Myosin Heavy Chain	
Theresa Chen, Jane Liu, and Emil Reisler	369
Inhibition of Sodium-Dependent Transport Systems in Rat Renal Brush-Border Membranes	
with N,N'-Dicyclohexylcarbodiimide	
Thomas Friedrich, Jutta Sablotni, and Gerhard Burckhardt	375
A Single Form of Protein Kinase C Is Expressed in Bovine Adrenocortical Tissue, as	
Compared to Four Chromatographically Resolved Isozymes in Rat Brain	
Jean-Marc Pelosin, Isabelle Vilgrain, and Edmond M. Chambaz	382
•	

The Action of Erythropoietin Is Mediated by Lipoxygenase Metabolities in Murine Fetal Liver Cells B. S. Beckman, M. Mason-Garcia, L. Nystuen, L. King, and J. W. Fisher	392
The Insulin-Receptor Interaction: Is the Kinetic Approach for Inferring Negative-Cooperative Site-Site Interactions Valid? E. Helmerhorst	399
Binding Proteins for Insulin-like Growth Factors in Adult Rat Serum: Comparison with Other Human and Rat Binding Proteins *Robert C. Baxter and Janet L. Martin*	408
The Action of Neutrophil Elastase on Intact and Oxidized (Met)-Enkephalin-Arg ⁶ -Gly ⁷ -Leu ⁸ Peptide Wieslaw Watorek and James Travis	416
Binding Constants of Soluble NGF-Receptors in Rat Oligodendrocytes and Astrocytes in Culture Dario Marchetti, Robert W. Stach, Russell Saneto,	
Jean de Vellis, and J. Regino Perez-Polo Inhibition of Protein Kinase C from Polymorphonuclear Neutrophils by Long Chain Acyl	422
Coenzyme A and Counteraction by Mg-ATP Marie-José Stasia, Anne-Christine Dianoux, and Pierre V. Vignais	428
Nuclear Transition Protein 2 (TP2) of Mammalian Spermatids Has a Very Basic Carboxyl	440
Terminal Domain Kenneth D. Cole and W. Stephen Kistler	437
Reconstitution of the G _s Protein from B16 Melanoma Clones of High and Low Experimental	
Metastatic Potential into \$49 CYC- Membranes	
Bruce R. Lester, Jeffrey M. Stadel, Charles Buscarino, John Sheppard,	443
Russell G. Greig, and George Poste Purification of Decidual Prolactin-Releasing Factor, a Placental Protein That Stimulates	443
Prolactin Release from Human Decidual Tissue	
Stuart Handwerger, Darrell Capel, Gil Korner, and Randall Richards	452
Erythrocyte Membrane Heterogeneity Studied Using 1,6-Diphenyl-1,3,5-hexatriene	
Fluorescence Lifetime Distribution R. M. Fiorini, M. Valentino, E. Gratton,	
E. Bertoli, and G. Curatola	460
Evidence That Post-transcriptional Changes in the Expression of Mitogen Regulated	
Protein Accompany Immortalization of Mouse Cells	467
Dylan R. Edwards, Craig L. J. Parfett, Jim H. Smith, and David T. Denhardt The Soluble Metalloendoprotease Required in Myoblast Fusion Remains Intracellular	407
Horacio A. Farach, Jr., and Warren J. Strittmatter	474
C-Terminal Proteolysis of the Avian 1,25-Dihydroxyvitamin D ₃ Receptor	
Elizabeth A. Allegretto, J. Wesley Pike, and Mark R. Haussler	479
Induction of Prolyl Hydroxylase Activity in a Nonadherent Population of Human	
Leukocytes William J. Lindblad, James A. French II, Kaye S. Redford,	400
Susan K. Buenaventura, and I. Kelman Cohen	486
Increased Messenger RNA Concentration for Carbamoyl-Phosphate Synthase II in Hepatoma 3924A Melissa A. Reardon, Jack E. Dixon, and George Weber	494
Cyclic AMP-Induced Expression of the Mouse Lactate Dehydrogenase-A Promoter CAT	7/7
Fusion Gene in Chinese Hamster Ovary Wild-Type Cells, but not in cAMP-Dependent	
Protein Kinase Mutant Cells Esther W. Hou and Steven SL. Li	501
Infrared Spectroscopic Evidence for a Conformational Alteration of Plant Plasma	
Membranes upon Exposure to the Growth Hormone Analog, 2,4-Dichloro-	
phenoxyacetic Acid D. James Morré, John H. Crowe, Dorothy M. Morré,	E06
and Lois M. Crowe Rat Transformation-Associated Proteins (TAP) Induced by Moloney Murine Sarcoma	506
Virus Interact with Specific Receptors on Normal Rat Kidney Cells	
Wanjun Li, Peter Steck, James M. Bowen, and James C. Chan	513
•	
Volume 147, Number 2, September 15, 1987	
AUTHOR INDEX, Volume 147, Number 2, September 15, 1987	ii
Fluoride Effects on ³¹ P NMR Spectra of Macrophages Claire Ducrocq, Maryse Lenfant, Georges H. Werner, Brigitte Gillet, and Jean-Claude Beloeil	519

Isolation and Characterization of the α and β Chains of Human Platelet Glycoprotein Ib Vikki A. Canfield, Juris Ozols, Diane Nugent, and Gerald J. Roth	526
Analysis by Flow Cytometry of Rat Hepatocytes from Different Acinar Zones	320
Jose Luis Vargas, Enrique O'Connor, Enrique Roche,	
Erwin Knecht, and Santiago Grisolia	535
Cyclosporin A Inhibits PGE ₂ Release from Vascular Smooth Muscle Cells	555
Armin Kurtz, Josef Pfeilschifter, Karlwilhelm Kühn, and Karl-Martin Koch	542
Insulin Stimulates Secretion of a Collagenase Inhibitor by Swarm Rat Chondrosarcoma	542
Chondrocytes Judith Harper and Elvin Harper	550
In Vitro Assay of Squalene Epoxidase of Saccharomyces cerevisiae	550
Bonaventure M'Baya and Francis Karst	556
Pyridoxal 5'Phosphate Binding Site of Escherichia coli β Cystathionase and Cystathionine γ	330
Synthase: Comparison of Their Sequences A. Martel, C. Bouthier de la Tour,	
	E (E
and F. Le Goffic	565
Protective Effect of Endogenous Coenzyme Q on Both Lipid Peroxidation and Respiratory	
Chain Inactivation Induced by an Adriamycin-Iron Complex G. Solaini,	
L. Landi, P. Pasquali, and C.A. Rossi	572
Cloning and Sequence Analysis of a cDNA Encoding Polyubiquitin in Human Ovarian	
Granulosa Cells R. Einspanier, H. S. Sharma, and K. H. Scheit	581
On the Relationship between Nucleotide Hydrolysis and Microtubule Assembly: Studies	
with a GTP-Regenerating System Maria J. Schilstra, Stephen R. Martin,	
and Peter M. Bayley	588
A Viral K-ras Protein Increases the Stimulability of Adenylate Cyclase by Cholera Toxin in	
NRK Cells Douglas J. Franks, James F. Whitfield, and Jon P. Durkin	596
Crosslinked Polymers in the Red Cell Membranes of a Patient with Hb-Koln Disease	
L. Lorand, M. Michalska, S. N. P. Murthy, S. B. Shohet, and J. Wilson	602
Factor XIII Binds to the $A\alpha$ - and $B\beta$ -Chains in the D-Domain of Fibrinogen: An	
Immunoblotting Study Ann Mary, Komandoor E. Achyuthan,	
and Charles S. Greenberg	608
Identification of A Chain Cleavage Sites in Intact Insulin Produced by Insulin Protease and	
Isolated Hepatocytes William C. Duckworth, Frederick G. Hamel,	
Juris J. Liepnieks, Daniel E. Peavy, Michael P. Ryan,	
Mark A. Hermodson, and Bruce H. Frank	615
Modulation of Human Neutrophil LTA Hydrolase Activity by Phorbol Myristate Acetate	015
Shaun R. McColl, Nigel P. Hurst, W. Henry Betts, and Leslie G. Cleland	622
A Hemodynamic Load in Vivo Induces Cardiac Expression of the Cellular Oncogene, c-myc	022
Sharon L. Mulvagh, Lloyd H. Michael, M. Benjamin Perryman,	
Robert Roberts, and Michael D. Schneider	627
cDNA Cloning and Characterizations of Vinculin mRNA M. D. Coutu,	027
	627
D. J. Simon, A. E. Brown, and S. W. Craig A Novel Enzyme Immunoassay of Anti-insulin IgG in Guinea Pig Serum	637
	644
Takeyuki Kohno and Eiji Ishikawa	644
Alternative Splicing Model for the Synthesis and Secretion of the 20 Kilodalton Form of Rat Growth Hormone David S. Howland, Marianne A. Farrington.	
	650
William D. Taylor, and W. C. Hymer	650
External GSSG Enhances Intracellular Glutathione Level in Isolated Cardiac Myocytes	
C. Guarnieri, A. Fraticelli, C. Ventura, I. Vaona, and R. Budini	658
SC-39026, a Specific Human Neutrophil Elastase Inhibitor Akira Nakao,	
Richard A. Partis, Geralyn P. Jung, and Richard A. Mueller	666
Isolation and Uptake Characteristics of Adenovirus Transformed Cell Revertants Resistant	
to the Antiproliferative Effects of Methylglyoxal Bis(guanylhydrazone)	
M. T. Rodrigues, L. Palkonyay, S. Sircar, J. Fleurent,	.
J. Dessureault, and J. M. Weber	675
Xanthine Oxidase and Endothelium Dependent Relaxation George Thomas	
and Peter W Ramwell	682

Isolation of Murine Pluripotent Hemopoietic Stem Cells in the G ₀ Phase	
Muneo Miyama-Inaba, Hajime Ogata, Junko Toki, Sho-ichi Kuma,	
Kikuya Sugiura, Ryoji Yasumizu, and Susumu Ikehara	687
Increased 13-Hydroxyoctadecadienoic Acid Content in Lipopolysaccharide Stimulated	
Macrophages Ulrich F. Schade, Ingrid Burmeister, and Regina Engel	695
Nitrile Hydratase Is a Quinoprotein. A Possible New Function of Pyrroloquinoline	
Quinone: Activation of H ₂ O in an Enzymatic Hydration Reaction	
Toru Nagasawa and Hideaki Yamada	701
Human α1-Acid Glycoprotein-Exposed Macrophages Release Interleukin 1 Inhibitory	
Activity P. N. Bories, M. Guenounou, J. Féger, E. Kodari,	
J. Agneray, and G. Durand	710
TPA-Induction of C-fos mRNA during the Cell Cycle of WI-38 Human Fibroblasts	
Bruno Calabretta and W. Edgar Mercer	716
Emergence of β Adrenergic-Responsive Hepatic Glycogenolysis in Male Rats during	, 10
Postmaturational Aging Michael S. Katz, Christopher L. McNair,	
Tazuko K. Hymer, and Sarah R. Boland	724
Absorption and Metabolism of Vitamin K in Swiss 3T3 Mouse Fibroblasts: A Model System	127
for Study of Vitamin K Absorption and Metabolism Louise M. Canfield,	
for Study of Vitamin K Absorption and Metabolism Louise M. Canfield, Terryl M. Johnson, Gail S. Martin, and J. Martyn Gunn	731
Principle of Princ	731
Dissociation of Recombinant Tumor Necrosis Factor-α Studied by Gel Permeation	740
Chromatography Linda Owers Narhi and Tsutomu Arakawa	/40
Near Infrared Sensitivity of the Eye of the Crustacean Mysis relicta?	747
M. Lindström and V. B. Meyer-Rochow	747
Microheterogeneity of the Malate Dehydrogenase from Several Sources	
Carlos Domènech, Juan Abante, Francesc-Xavier Bozal, Adela Mazo,	752
Antonio Cortés, and Jorge Bozal	753
Functional and Biochemical Interaction of Dibutyryl Cyclic AMP with the	
Phosphoinositide System in Isolated Rat Parietal Cells Andreas Pfeiffer,	~~~
Gerd Sauter, and Helmut Rochlitz	758
A Phosphooligosaccharide Mimics Insulin Action on Glycogen Phosphorylase and	
Pyruvate Kinase Activities in Isolated Rat Hepatocytes José F. Alvarez,	
María A. Cabello, Juan E. Felíu and José M. Mato	765
Phosphorothioated Binary Complex of Eukaryotic Initiation Factor eIF-2 and GDP Inhibits	
Protein Synthesis in Hemin-Supplemented Reticulocyte Lysates	
Robin Hurst and Robert L. Matts	772
Role of Superoxide in Radiation Killing of Escherichia coli and in Thymine Release from	
Thymidine Wen Shu Lin, Fred Wong, and Robert Anderson	778
Evidence That Bacteria Induce Translocation of Protein Kinase C Activity in Human	
Polymorphonuclear Leukocytes Niels Obel Christiansen,	
Niels Anker Peterslund, Carsten Schade Larsen, and Viggo Esmann	787
Characterization of a Cytochrome P-450 Deficient Mutant of Candida albicans	
M. Bard, N. D. Lees, R. J. Barbuch, and D. Sanglard	794
Uncoupling of Mitochondrial Oxidative Phosphorylation by Hexetidine	
Gabriella D'Arcangelo, Maria Barile, Salvatore Passarella,	
and Ernesto Quagliariello	801
Transient Induction of Ornithine Decarboxylase mRNA in Rat Hepatoma Cells Treated with	
12-O-Tetradecanoylphorbol-13-acetate Andrew P. Butler	
and Frances F. McDonald	809
Structural Assignment of the Heme Potentials of Cytochrome C ₃ , Using a Specifically	
Modified Arginine A. Dolla, C. Cambillau, P. Bianco, J. Haladjian,	
and M. Bruschi	818
A Nuclear Factor Which Interacts with an AT-Cluster in the First Intron of Rat α ₂ -	
Macroglobulin Gene Takashi Ito and Yoshiyuki Sakaki	824
Molecular Cloning of the Pseudomonas putida Glyoxalase I Gene in Escherichia coli	
Hae-ik Rhee, Kousaku Murata, and Akira Kimura	831

PSL, a Nuclear Cell-Cycle Associated Antigen Is Increased during Retinoic Acid-Induced	
Differentiation of HL-60 Cells Jean-Philippe Barque, Sylvie Lagaye,	
Annie Ladoux, Véronique Della Valle, Jean Pierre Abita,	993
and Christian-Jacques Larsen	773
Acetylcholine Receptor Channel Properties in Rat Myotubes Exposed to Forskolin	1000
F. Grassi, L. Monaco, and F. Eusebi	1000
Reaction Mechanism for Automodification of Poly(ADP-ribos) Synthetase	1000
Taketoshi Taniguchi	1008
Structural Studies of Lens Fiber Junction Protein MP26 by Cyanogen Bromide Cleavage	1010
Jose Alcala, Jonathan Lawniczak, Dave Putt, and Harry Maisel	1013
Structure of Purified Cytoplasmic Cofactor from Methanobacterium thermoautotrophicum	1001
F. D. Sauer, B. A. Blackwell, and J. K. G. Kramer	1021
Lack of a Central Role for Calcium in the Induction and Release of Human Interleukin-1	1005
Robert C. Newton	1027
Relationship between the Inhibitory Potencies of Thiorphan and Retrothiorphan	
Enantiomers on Thermolysin and Neutral Endopeptidase 24.11 and Their Interactions with the Thermolysin Active Site by Computer Modeling	
· · · · · · · · · · · · · · · · · · ·	1034
Calcium-Independent Activation of Two Plant Leaf Calcium-Regulated Protein Kinases by	1054
Unsaturated Fatty Acids E. Klucis an G. M. Polya	1041
	1041
Regulation of Nerve Growth Factor Synthesis/Secretion by Catecholamine in Cultured	
Mouse Astroglial Cells Shoei Furukawa, Yoshiko Furukawa,	1040
Eijiro Satoyoshi, and Kyozo Hayashi	1048
Evidence for Imidazoline Binding Sites in Basolateral Membranes from Rabbit Kidney	1055
Isabelle Coupry, René A. Podevin, Jean-Pierre Dausse, and Angelo Parini	1055
Immunoaffinity Purification and Characterization of Nucleotide Pyrophosphatase from	
Human Placenta Toshiro Yano, Kazutoshi Horie, Ritsuko Kanamoto,	
Hiroshi Kitagawa, Ikuo Funakoshi, and Ikuo Yamashina	1061
Alkylation of the Bovine Anterior Pituitary D ₂ -Dopamine Receptor: Inconsistency with	
Predictions of the Ternary Complex Model Keith A. Wreggett	1070
Bovine Mitochondrial Ribosomes: Effect of Cations and Heterologous Dissociation Factors	
on Subunit Interactions Linda Spremulli and Betsy L. Kraus	
Adenine Methylation in Zein Genes José Antonio Pintor-Toro	1082
Guanine Nucleotide and Pyrophosphate Activate Exogenous Phosphatidylinositol 4,5-Bisphosphate Hydrolysis in Rat Liver Plasma Membranes	
Dejan Bojanic, Michael A. Wallace, Richard J. H. Wojcikiewicz,	
and John N. Fain	1000
	1000
Model Study on the Bioreduction of Paraquat, MPP ⁺ , and Analogs: Evidence against a "Redox Cycling" Mechanism in MPTP Neurotoxicity Dorothy M. Frank,	
	1005
Pramod. K. Arora, Jeffrey L. Blumer, and Lawrence M. Sayre Incorporation of the Carbocyclic Analog of (E)-5-(2-Bromovinyl)-2'-deoxyuridine	1095
	1105
A. Csárnyi, T. Kovács, and L. Ötvös	1105
Dual Role of GTP-Binding Proteins in the Control of Endothelial Prostacyclin	1112
S. Pirotton, C. Erneux, and J. M. Boeynaems	1113
Aldolase Decreases the Dissociation-Induced Inactivation of Muscle Phosphofructokinase	1121
Ferenc Orosz, Tania Y. Christova, and Judit Ovádi	1121
The Generation of the Rifamycin Binding Site in the β Subunit of Escherichia coli RNA	
Polymerase through Subunit Interactions James F. Lowder	1120
	1129
Photoaffinity Labeling and Phosphorylation of a 165-Kilodalton Peptide Associated with	
Dihydropyridine and Phenylalkylamine-Sensitive Calcium Channels	
M. Marlene Hosey, Jacques Barhanin, Annie Schmid, Sylvie Vandaele,	1127
Judy Ptasienski, Cliff O'Callahan, Christy Cooper, and Michel Lazdunski	113/

Three Distinct Forms of Atrial Natriuretic Factor Receptors: Kidney Tubular Epithelium	
Cells and Vascular Smooth Muscle Cells Contain Different Types of Receptors	
Kailash N. Pandey, Tadashi Inagami, and Kunio S Misono	1146
Biosynthesis of Reovirus-Specified Polypeptides: Molecular cDNA Cloning and	
Nucleotide Sequence of the Reovirus Serotype 1 Lang Strain s2 mRNA Which Encodes	
the Virion Core Polypeptide σ_2 Cyril X. George, Alison Crowe,	
Susan M. Munemitsu, Jonathan A. Atwater, and Charles E. Samuel	1153
Effect of Cisapride on the Concentrations of β -Endorphinlike Immunoreactivity and	
Substance P-like Immunoreactivity in the Rat Gastrointestinal Tract	
Akira Tari, Koji Sumii, Masaharu Yoshihara, Hiroaki Ohgoshi, Hitoshi Teshima,	
Issaku Fukuhara, Ken Haruma, Goro Kajiyama, Ko Tanaka,	
Akima Miyoshi, and Yukitaka Miyachi	1162
Alterations in Tissue Mg ²⁺ , Na ⁺ , and Spinal Cord Edema following Impact Trauma in Rats	
M. Lemke, P. Demediuk, T. K. McIntosh, R. Vink, and A. I. Faden	1170
Human Urokinase-Type Plasminogen Activator Stimulates Chemotaxis of Human	
the state of the s	1176
Construction of a cDNA Clone Containing the Entire Coding Region of the Human Liver-	1170
Type Phosphofructokinase D. Levanon, E. Danciger, N. Dafni, and Y. Groner	1182
Glucocorticoid Receptors Are Associated with Particles Containing DNA and RNA in Vivo	1102
	1188
Activation of the Ha-ras Gene in C3H 10T1/2 Cells Transformed by Exposure to	1100
N-Methyl-N'-nitro-N-nitrosoguanidine G. J. Smith and J. W. Grisham	1194
Glutathione Peroxidase in Yeast: Presence of the Enzyme and Induction by Oxidative	1174
Conditions Francesca Galiazzo, Alma Schiesser, and Guiseppe Rotilio	1200
The Specificity of the Human IGF-2 Receptor Michael Tally, Gösta Enberg,	1200
Choh Hao Li, and Kerstin Hall	1206
Platelet Activating Factor-Mediated Leukotriene Biosynthesis in Rat Lungs: Effect of	1200
	1010
Prostaglandins E_1 and $F_{1\alpha}$ V. Di Marzo, J. R. Tippins, and H. R. Morris The Membrane-Anchor of Paramecium Temperature-Specific Surface Antigens Is a	1213
Glycosylinositol Phospholipid Yvonne Capdeville,	1210
M. Lucia Cardoso de Almeida, and Christiane Deregnaucourt	1219
Studies of the Penetration of the Blood-Brain Barrier by Atrial Natriuretic Factor	
Ellis R. Levin, Harrison J. L. Frank, Michael A. Weber,	
Mohammad Ismail, and Steven Mills	1226
Role of Kinase C in the Insulinlike Effects of Human Growth Hormone in Rat Adipocytes	
	1232
Inhibition of Nuclear Binding of Triiodothyronine by Antimycin A in Cultured Human	
Fibroblasts Luis Valdivielso and Juan Bernal	1241
Partial Purification of Cytochrome P-450 from Rat Brain and Demonstration of Estradiol	
Hydroxylation Osamu Sugita, Shinichi Miyairi, Shigeru Sassa,	
and Attallah Kappas	1245
Phosphorylation of Phosphatidylinositol Associated with the Nicotinic Acetylcholine	
Receptor of Torpedo californica Reinhold Kiehl, Magdolna Varsányi,	
and Eberhard Neumann	1251
The Aromatase Active Site: The C-6 "Front" Side of the Androgen Molecule Is Required for	
Binding Liat Tan and Pierre Rousseau	1259
ADP Increases the Affinity for Cytochrome c by Interaction with the Matrix Side of Bovine	
Heart Cytochrome c Oxidase Fritz-Joachim Hüther and Bernhard Kadenbach	1268
Evidence for the Involvement of Hydroxyl Radicals in Nickel Mediated Enhancement of	
Lipid Peroxidation: Implications for Nickel Carcinogenesis	
Mohammad Athar, Syed K. Hasan, and Ramesh C. Srivastava	1276
PGE ₂ Causes a Coordinate Decrease in the Steady-State Levels of Fibronectin and Types I	
and III Procollagen mRNAs in Normal Human Dermal Fibroblasts	
John Varga, Arturo Diaz-Perez, Joel Rosenbloom, and Sergio A. Jimenez	1282

from Desulfovibrio desulfuricans Norway Jean Haladjian, Pierre Bianco, Françoise Guerlesquin, and Mireille Bruschi	1289
Reduction and Catalytic Properties of Cytochrome P-450 LM2 in Reconstituted System Containing Monomeric Carriers I. P. Kanaeva, E. D. Skotselyas, I. F. Turkina, E. V. Petrochenko, D. R. Davydov, S. K. Kondrashin, Ch. S. Dzuzenova,	1207
G. I. Bachmanova, and A. I. Archakov	1295
ERRATA	
Volume 140, Number 3, November 14, 1986: Margit Balázs, János Matkó, János Szöllösi, László Mátyus, Mack J. Fulwyler, and Sándor Damjanovich, "Accessibility of Cell Surface Thiols in Human Lymphocytes Is Altered by	
Ionophores or OKT-3 Antibody," pp. 999-1006 Volume 143, Number 2, March 13, 1987: Michael T. Makler, "P. falciparum Invasion	1300
of Human Red Cells and Cytoadherence to Endothelial Cells Is Dependent upon a Parasite Produced Glycosidase," pp. 461-466 Volume 145, Number 1, May 29, 1987: Kamal F. Badr, Charles N. Serhan, K. C.	1301
Nicolaou, and Bengt Samuelsson, "The Action of Lipoxin-A on Glomerular Microcirculatory Dynamics in the Rat," pp. 408-414 Volume 145, Number 3, June 30, 1987: Jesús Sánchez-Yagüe, José A. Cabezas, and	1300
Marcial Llanillo, "Rearrangement of Aminophospholipids in Bilayers from Sheep Platelet Plasma Membranes and Platelet Liposomes by Increasing Their	
Cholesterol Levels," pp. 1362-1367 Author Index for Volume 147	1303
Volume 148, Number 1, October 14, 1987	
AUTHOR INDEX, Volume 148, Number 1, October 14, 1987	ii
Paradoxical Augmentation of (-)Bay K 8644-Induced Calcium Influx by Nitrendipine Kunihisa Miwa and Arnold Schwartz	1
Euthyroid Status Is Essential for the Perinatal Increase in Thermogenin mRNA in Brown Adipose Tissue of Rat Pups Maria-Jesus Obregon, Rajan Pitamber,	
Anders Jacobsson, Jan Nedergaard, and Barbara Cannon Rational Construction of a 2-Hydroxyacid Dehydrogenase with New Substrate Specificity Anthony R. Clarke, Corinne J. Smith, Keith W. Hart, Helen M. Wilks, William N. Chia, Thomas V. Lee, Jens J. Birktoft, Leonard J. Banaszak,	9
David A. Barstow, Tony Atkinson, and J. John Holbrook	15
Characterization of a Substance P-Gly ¹² Amidating Enzyme in Human Cerebrospinal Fluid Henning Vaeröy, Fred Nyberg, Henry Franzén, and Lars Terenius	24
Nucleotide Sequence of a Bovine Lens αA-Crystallin cDNA Regine E. Hay and J. Mark Petrash	31
The Diacylglycerol Kinase Inhibitor R59022 Potentiates Superoxide Production but Not Secretion Induced by fMet-Leu-Phe: Effects of Leupeptin and the Protein Kinase C Inhibitor H-7 J. Gomez-Cambronero, T. F. P. Molski, E. L. Becker,	52
and R. I. Sha'afi	38
Histamine Stimulates Inositol Phosphate Accumulation via the H ₁ -Receptor in Cultured Human Endothelial Cells W. W. Y. Lo and TP. D. Fan	47
Phosphatidylinositol Stimulates Phosphorylation of Protein Components I and II in Rod Outer Segments of Frog Photoreceptors Fumio Hayashi, Mariko Sumi, and Taisaku Amakawa	54
Down-Regulation of Atrial Natriuretic Factor Receptors and Correlation with cGMP Stimulation in Rat Cultured Vascular Smooth Muscle Cells P. Roubert,	- '
M. O. Lonchampt, P. E. Chabrier, P. Plas, J. Goulin, and P. Braquet Evidence for a Lack of Inositol- (1,4,5)Trisphosphate Kinase Activity in Norepinephrine- Perfused Rat Hearts Elizabeth A. Woodcock, A. Ian Smith, Catherine A. Wallace, and L. Barbara Schmauk White	61
Control in the in transact, and D. Maroura Deliman Time	00

Inhibition of HIV-Associated Reverse Transcriptase by Sugar-Modified Derivatives of Thymidine 5'-Triphosphate in Comparison to Cellular DNA Polymerases α and β E. Matthes, Ch. Lehmann, D. Scholz, M. von Janta-Lipinski, K. Gaertner,	
H. A. Rosenthal, and P. Langen Stimulation of Cellular DNA Synthesis by Wild Type and Mutant Bovine Papillomavirus	78
DNA Dariusz Jaskulski, Leszek Kaczmarek, and Daniel DiMaio A "Molten Globule"-like Unfolding Intermediate of a Four Domain Protein: The Fc Fragment of the IgG Molecule F. Vonderviszt, S. Lakatos, P. Gál,	86
M. Sárvári, and P. Závodszky Immunological Evidence for the Presence of Hormone-Sensitive Lipase in Rat Tissues Other than Adipose Tissue Cecilia Holm, Per Balfrage,	92
The Interaction of Polyphosphoinositols with AMP Deaminase Calmodulin Inhibitors, W-7 and TFP, Block the Calmodulin-Independent Activation of NADPH Oxidase by Arachidonate in a Cell-Free System Atsuko Sakata,	99 106
Eiichi Ida, Mari Tominaga, and Kaoru Onoue Reversible Oxidation of Glyceraldehyde-3-phosphate Dehydrogenase Thiols in Human	112
Lung Carcinoma Cells by Hydrogen Peroxide Ann E. Brodie and Donald J. Reed Lung Carcinoma Cells by Hydrogen Peroxide Ann E. Brodie and Donald J. Reed	120
Use of GTP to Distinguish Calcium Transporting ATPase Activity from Other Calcium- Dependent-Nucleotide Phosphatases in Human Placental Basal Plasma Membrane Lucky K. Kelley and Carl H. Smith	126
GTP-Binding Proteins in Etiolated Epicotyls of Pisum sativum (Alaska) Seedlings Kohji Hasunuma, Kazuhiko Furukawa, Kaori Tomita,	120
Chihiro Mukai, and Teruko Nakamura A Membrane Protein from IFN-β-Treated Daudi Cells Causes a Cessation in Cell Growth	133
Milton C. Hillman, Jr., Ernest Knight, Jr., and Dale C. Blomstrom Genetic Characterization of an Escherichia coli Mutant Deficient in Organophosphonate	140
Biodegradation S. H. Loo, N. K. Peters, and J. W. Frost Increased Efflux Rather than Oxidation Is the Mechanism of Glutathione Depletion by 1-Methyl-4-phenyl-1,2,3,6-tetrahydropyridine Donato Di Monte,	148
Martha S. Sandy, and Martyn T. Smith The Isolation and Characterization of a cDNA Clone for Human Lecithin: Cholesterol Acyl Transferase and Its Use to Analyze the Genes in Patients with LCAT Deficiency and Fish Eye Disease Sissel Rogne, Grethe Skretting, Frank Larsen, Ola Myklebost, Bente Mevåg, Lars A. Carlson, Leif Holmquist,	153
Egil Gjone, and Hans Prydz Incorporation of Reaction Centers into Submitochondrial Particles Resulting in Light-	161
Induced Electron Transfer J. Hladik, M. Snozzi, and R. Bachofen Comparison of β Adrenoceptors in Bovine Airway Epithelium and Smooth Muscle Cells	170
D. K. Agrawal, J. W. Schugel, and R. G. Townley Vitamin K-Dependent Oxygenase/Carboxylase: Differential Inactivation by Sulfhydryl	178
Reagents Louise M. Canfield Eightfold Induction of Nicotine Elimination in Perfused Rat Liver by Pretreatment with	184
Phenobarbital U. Rüdell, H. Foth, and G. F. Kahl Formation of Inositol 1,3,4,6-Tetrakisphosphate during Angiotensin II Action in Bovine Adrenal Glomerulosa Cells Tamas Balla, Gaetan Guillemette, Albert J. Baukal, and Kevin J. Catt	192 199
Antiretroviral Activity of Castanospermine and Deoxynojirimycin, Specific Inhibitors of Glycoprotein Processing Prasad S. Sunkara, Terry L. Bowlin, Paul S. Liu, and Albert Sjoerdsma	206
Atrial Natriuretic Polypeptide (ANP) in Human Ventricle: Increased Gene Expression of ANP in Dilated Cardiomyopathy Yoshihiko Saito, Kazuwa Nakao, Hiroshi Arai, Akira Sugawara, Narito Morii, Takayuki Yamada, Hiroshi Itoh,	
Shozo Shiono, Masashi Mukoyama, Kenji Obata, Hirofumi Yasue, Hiroaki Ohkubo, Shigetada Nakanishi, and Hiroo Imura	211

Bull Sperm 19 S Dynein Polymerizes Brain Tubulin into Microtubules	
Joel Eyer, Daniel White, and Claude Gagnon	218
Vasopressor Peptides and Depolarization Stimulated Ca ²⁺ Entry into Cultured Vascular	
Smooth Muscle A. Zschauer, T. Scott-Burden, F. R. Bühler,	225
and C. van Breemen	225
Purification and Characterization of Human Liver Cytochrome P-450-ALC Jerome M. Lasker, Judy Raucy, Shinji Kubota, Barbara P. Bloswick,	
Martin Black, and Charles S. Lieber	232
Simultaneous Measurement of Atrial Natriuretic Polypeptide (ANP) Messenger RNA and	432
ANP in Rat Heart: Evidence for a Preferentially Increased Synthesis and Secretion of	
ANP in Left Atrium of Spontaneously Hypertensive Rats	
Hiroshi Arai, Kazuwa Nakao, Yoshihiko Saito, Narito Morii, Akira Sugawara,	
Takayuki Yamada, Hiroshi Itoh, Shozo Shiono, Masashi Mukoyama,	
Hiroaki Ohkubo, Shigetada Nakanishi, and Hiroo Imura	239
Immunochemical Evidence that the FITC-Labeling Site on Na ⁺ , K ⁺ -ATPase Is Not the	
ATP-Binding Site W. J. Ball, Jr., and M. L. Friedman	246
Intracellular Transport and Processing of Lysosomal Cathepsin B	
Yukio Nishimura and Keitaro Kato	254
Toxicity of Enymatically Oxidized Low-Density Lipoprotein	
Alan W. Bernheimer, William G. Robinson, Regina Linder, Deborra Mullins,	
Y. K. Yip, Norman S. Cooper, Irving Seidman, and T. Uwajima	260
Biochemical and Immunochemical Similarity between Erythrocyte Membrane Aspartic	
Proteinase and Cathepsin E Kenji Yamamoto, Eiko Ueno, Haruki Uemura,	
and Yuzo Kato	267
Vasopressin Increases ⁴⁵ Ca ²⁺ Influx in Rat Aortic Smooth Muscle Cells	
Andreas Wallnöfer, Cynthia Cauvin, and Urs T. Rüegg	273
Identification of a Novel In-frame Translational Stop Codon in Human Intestine ApoB	
mRNA Ashok V. Hospattankar, Keiichi Higuchi, Simon W. Law, Nancy Meglin,	279
and H. Bryan Brewer, Jr. Presence of Functional Receptors for Atrial Natriuretic Peptide in Human	217
Pheochromocytoma H. Shionoiri, N. Hirawa, I. Takasaki, Y. Ishikawa, K. Minamisawa, E. Miyajima, Y. Kinoshita, K. Shimoyama, M. Shimonaka,	
M. Ishido, and S. Hirose	286
Inhibition of Calcium- and Calmodulin-Dependent Phosphodiesterase Activity in Rats by	200
Capsaicin Bharathi P. Salimath and M. N. Satyanarayana	292
Direct Activation of Guanine Nucleotide Binding Proteins through a High-Energy	
Phosphate Transfer by Nucleoside Diphosphate Kinase	
Kenzo Ohtsuki and Minehiko Yokoyama	300
Serum Amyloid P Component Is the Major Calcium-Dependent Specific DNA Binding	
Protein of the Serum M. B. Pepys and P. J. G. Butler	308
Role of Xanthine Oxidase Inhibitor as Free Radical Scavenger: A Novel Mechanism of	
Action of Allopurinol and Oxypurinol in Myocardial Salvage	
Dipak K. Das, Richard M. Engelman, Ronald Clement, Hajime Otani,	014
M. Renuka Prasad, and Parinam S. Rao	314
Apolipoprotein CII (Apo CII) Gene Expression Defect in an Individual with Familial Apo	220
CII Deficiency P. J. Davison, A. F. H. Stalenhoef, and S. E. Humphries	320
Intracellular Transport and Processing of Lysosomal Cathepsin H Yukio Nishimura and Keitaro Kato	329
Identification of a Precursor Form of Cathepsin D in Microsomal Lumen: Characterization	34,7
of Enzymatic Activation and Proteolytic Processing in Vitro	
Yukio Nishimura, Masahide Higaki, and Keitaro Kato	335
A New Leader Exon Identified in the Rat Insulin-like Growth Factor II Gene	
Takaki Ueno, Keikichi Takahashi, Tetsuya Matsuguchi,	
Hideya Endo, and Mikio Yamamoto	344
Induction of the R _I cAMP-Binding Protein in the "Neurite-Minus" N1A-103 Mouse	
Neuroblastoma Cell Line Alice YC. Liu, V. Kamalakannan, and Zheng Lin	350

Volume 148, Number 3, November 13, 1987

AUTHOR INDEX, Volume 148, Number 3, November 13, 1987	iii
Sodium Butyrate Activates Human Immunodeficiency Virus Long Terminal Repeat— Directed Expression C. Bohan, D. York, and A. Srinivasan	899
Effect of Moderate Hypoxemia on Atrial Natriuretic Factor and Arginine Vasopressin in	
Normal Man P. du Souich, C. Saunier, D. Hartemann, A. Sautegeau,	
H. Ong, P. Larose, and R. Babini	906
Poly(ADP-ribose) Polymerase Forms Loops with DNA Gérard Gradwohl,	
Alice Mazen, and Gilbert de Murcia	913
Inhibitors of Sterol Synthesis: Effect of Dietary 5α -Cholest-8(14)-en-3 β -ol-15-one on	,,,,
ACAT Activity of Jejunal Microsomes of the Rat Dolores H. Needleman,	
Kerry Strong, Katherine A. Stemke, John S. Brabson,	
Alemka Kisic, and George J. Schroepfer, Jr.	920
Photoaffinity Labeling of the Calcium Channel Antagonist Receptor in the Heart of the	, 20
Cardiomyopathic Hamster Tuan H. Kuo, Dave F. Johnson, Wayne Tsang,	
and Joseph Wiener	926
5α -Cholest-8(14)-en-3 β -ol-15-one. A Competitive Substrate for Acyl Coenzyme	/20
A:Cholesterol Acyl Transferase Larry R. Miller, Dolores H. Needleman,	
John S. Brabson, Ker-Shi Wang, and George J. Schroepfer, Jr.	934
Human Monoclonal Antibodies Produced from L-Leucine Methyl Ester-Treated and in Vitro	754
Immunized Peripheral Blood Lymphocytes Carl A. K. Borrebaeck,	
Lena Danielsson, and Susanna A. Möller	941
Induction of Cytochrome P-448 Isozyme(s) in Primary Cultured Rat Hepatocytes by Drugs	741
Which Induce Different Isozymes in Vivo Takanori Hishinuma,	
Masakuni Degawa, Takashi Masuko, and Yoshiyuki Hashimoto	947
Aspects of Model Building Applied to the C-Terminal Domain of the L12 Protein from	747
Cloroplast Ribosomes: A Molecular Dynamics Study E. Horjales, J. Aqvist,	
M. Leijonmarck, and O. Tapia	954
Actions of Atrial Natriuretic Peptide (ANP) on Cyclic Nucleotide Concentrations and	7.74
	962
E. L. Rugg, and J. F. Aiton Differential Sensitivity of Arashidania Acid Palessa and 1.2 Disculphysesal Formation to	902
Differential Sensitivity of Arachidonic Acid Release and 1,2-Diacylglycerol Formation to Pertussis Toxin, GDPβS and NaF in Saponin-Permeabilized Human Platelets: Possible	
Evidence for Distinct GTP-Binding Proteins Involving Phospholipase C and A ₂ Activation Shigeru Nakashima, Hiroaki Hattori, Lisa Shirato.	
	971
Atsuko Takenaka, and Yoshinori Nozawa An Antibody and Anti-idiotypic Antibody against the Extra Signal Peptide of Pre-asparate	9/1
	979
Kenji Kangawa, Hisayuki Matsuo, and Hiroshi Wada ADP-Ribosylation of Ca ²⁺ -Dependent ATPase in Vitro Suppresses the Enzyme Activity	919
N. Hara, M. Tsuchiya, K. Mishima, Y. Tanigawa, and M. Shimoyama	989
On the Repair of Thymidine Bromohydrins, Damaged Nucleosides: A Possible New Model	707
for the Damage and Repair of Nucleic Acids Takashi Harayama,	
Reiko Yanada, Taishin Akiyama, Mihoko Tanaka, and Fumio Yoneda	995
Modulation of Proto-Oncogene Expression by Colony Stimulating Factors	773
Annick Harel-Bellan and William L. Farrar	1001
Reaction of 5'-p-Fluorosulfonylbenzoyladenosine with the Catalytic and AMP Allosteric	1001
Sites of Microsomal HMG-CoA Reductase Kinase	
Albert Ferrer, Carme Caelles, and Fausto G. Hegardt	1000
Rapid Desensitization of Substance P- but Not Carbachol-Induced Increases in Inositol	1007
Trisphosphate and Intracellular Ca ²⁺ in Rat Parotid Acinar Cells	
M. K. McMillian, S. P. Soltoff, and B. R. Talamo	1017
Synergism between Subthreshold Concentrations of Thrombin and 12-O-Tetradecanoyl-	1017
phorbol-13-acetate in Platelet Activation Yutaka Yatomi, Masaaki Higashihara,	
Akira Tanabe, Tatsuya Ohashi, Hiroshi Oka, and Shoji Kume	1025
zminos, zminya Omani, iti oni ona, ana bitoji izame	

Table	of	Content	

Functional Drug Targeting to Erythrocytes in Vivo Using Antibody Bearing Liposomes as Drug Vehicles Ajay K. Agrawal, Arun Singhal, and C. M. Gupta Carboxylate Polyanions Accelerate Inhibition of Thrombin by Heparin Cofactor II	357
Frank C. Church, Rita E. Treanor, G. Bradley Sherrill, and Herbert C. Whinna	362
In Vitro Modification of Bovine Lens Aldose Reductase Activity Antonella Del Corso, Marcella Camici, and Umberto Mura	369
Evidence that the Viral Ki-RAS Protein, but Not the pp60 ^{v-src} Protein of ASV, Stimulates	
Proliferation through the PDGF Receptor Jon P. Durkin and James F. Whitfield Decrease of Palmitoyl-CoA Elongation in Platelets and Leukocytes in a Patient of	376
Hereditary Methemoglobinemia Associated with Mental Retardation	
Masazumi Takeshita, Minoru Tamura, Mari Kugi, Takasumi Matsuki,	
Yoshimasa Yoneyama, and Tetsuma Igarashi	384
Fibrinolysis by Urokinase Endowed with Magnetic Property Y. Inada, K. Ohwada,	
T. Yoshimoto, S. Kojima, K. Takahashi, Y. Kodera,	
A. Matsushima, and Y. Saito	392
A ³¹ P NMR Study on Multilamellar Liposomes Formed from the Lipids of a Thermophilic Bacterium Teresa J. T. Pinheiro, Winchil L. C. Vaz, Carlos F. G. C. Geraldes,	
Adelina Prado, and Milton S. da Costa	397
Pertussis Toxin Inhibits the Action of Insulin-like Growth Factor I	
Ikuo Nishimoto, Etsuro Ogata, and Itaru Kojima	403
Bradykinin Stimulation of Inositol Phosphate and Calcium Responses Is Insensitive to	
Pertussis Toxin in NG115-401L Neuronal Cells Trevor R. Jackson,	
Sean I. Patterson, Yung H. Wong, and Michael R. Hanley	412
Carbon Monoxide Generation from Tin- and Zinc-Protoporphyrin by Tissue Homogenates Hendrik J. Vreman and David K. Stevenson	417
Ornithine Decarboxylase Induction and Polyamine Biosynthesis by Phorone	417
(Diisopropylidene Acetone), a Glutathione Depletor, in Rats	
Takiko Oguro, Satoshi Numazawa, Takemi Yoshida, and Yukio Kuroiwa	422
High Concentrations of STOP Protein Induce a Microtubule Super-Stable State	722
Didier Job, Charles T. Rauch, and Robert L. Margolis	429
The Effects of Phorbol Ester and Ca Ionophore on c-fos and c-myc Expression and on DNA	
Synthesis in Human Lymphocytes Are Not Directly Related Alain Pompidou,	
Marisol Corral, Paule Michel, Nicole Defer, Jacques Kruh, and Tom Curran	435
Identification of Erythropoietin Receptors on Fetal Liver Erythroid Cells	
Arinobu Tojo, Hiromi Fukamachi, Masato Kasuga, Akio Urabe, and Fumimaro Takaku	443
Mitogenic Activity in Platelet-Poor Plasma from Rats with Persistent Liver Nodules or Liver Cancer E. Semple, M. A. Hayes, T. H. Rushmore.	
Liver Cancer E. Semple, M. A. Hayes, T. H. Rushmore, L. Harris, and E. Farber	449
Hydrogen Bonding between Cytosine and Peptides of Threonine or Serine: Is It Relevant to	449
the Origin of the Genetic Code? Chien-Hua Niu, Kyou-hoon Han,	
Herman J. C. Yeh, and Simon Black	456
Partial Characterization and Amino Acid Composition of a High Molecular Weight Peptide	
with Salmon Calcitonin Immunoreactivity in a Crustacean; Nephrops norvegicus	
A. Van Wormhoudt and M. Fouchereau-Peron	463
Identification and Characterization of a Human Transthyrretin Variant	
John R. Strahler, Barnett B. Rosenblum, and Samir M. Hanash	471
The Membrane of the Rough Endoplasmic Reticulum Contains Cytoplasmically Exposed	450
High Affinity GTP-Binding Sites Danièle Godelaine and Henri Beaufay Chicken Apolipoprotein A-I: cDNA Sequence, Tissue Expression, and Evolution	478
Lucy Byrnes, Chi-Cheng Luo, Wen-Hsiung Li, Chao-yuh Yang, and Lawrence Chan	485
Effect of Hydroxyorganoboranes on Synthesis, Transport, and N-Linked Glycosylation of	705
Plasma Proteins Gabriel Goldberger, Mercedes A. Paz, B. Marina Torrelio,	
Yoshiaki Okamoto, and Paul M. Gallop	493
Site-Directed Mutagenesis of Hepatitis B Surface Antigen Sequence at Codon 160 from	
Arginine to Lysine for Conversion of Subtypic Determinant from r to w	
Hiroaki Okamoto, Mitsunobu Imai, Yuzo Miyakawa, and Makoto Mayumi	500

Glycosylated Prolactin in the Murine Pituitary: Detection by a Novel Assay and Alteration of Concentrations by Physiological and Pharmacological Stimuli	
Y. N. Sinha and B. P. Jacobsen	505
Synthesis of 4R- and 4S-Tritium-Labeled NADPH for the Determination of the Coenzyme	
Stereospecificity of NADPH:Protochlorophyllide Oxidoreductase	
Vimlesh Valera, Margaret Fung, Andreas N. Wessler, and William R. Richards	515
,,	
Volume 148, Number 2, October 29, 1987	
AUTHOR INDEX, Volume 148, Number 2, October 29, 1987	ii
Effect of Ribosome-Inactivating Proteins on Ribosomes from Tetrahymena pyriformis and	
Acanthamoeba castellanii Pietro Cenini, Maria Giulia Battelli,	
Andrea Bolognesi, Fiorenzo Stirpe, and Clarence L. Villemez	521
13-Hydroxyoctadeca-9,11-dienoic Acid Inhibits Thromboxane A ₂ Synthesis, and	
Stimulates 12-HETE Production in Human Platelets	
B. N. Yamaja Setty, Margarita Berger, and Marie J. Stuart	528
Indomethacin Increases the Formation of Lipoxygenase Products in Calcium Ionophore	
Stimulated Human Neutrophils John C. Docherty and Thomas W. Wilson	534
Attachment of Substrate Metabolite to Prostaglandin H Synthase upon Reaction with	
Arachidonic Acid Richard J. Kulmacz	539
Cloning and Sequence of cDNA Encoding a Peptide C-Terminal α-Amidating Enzyme from	
Xenopus laevis Kensaku Mizuno, Kazuhiro Ohsuye, Yayoi Wada,	
Kayoko Fuchimura, Shoji Tanaka, and Hisayuki Matsuo	546
Low Density Lipoprotein Inhibits Histamine Release from Human Mast Cells	
Edward S. Schulman, Thomas J. Quinn, Thomas J. Post,	
Phillip O'Donnell, Anabelle Rodriguez, and Boas Gonen	553
A Comparative Study of Permeabilization Induced by Extracellular ATP and by Sendai	
Virus Zohara Sternberg and Leon A. Heppel	560
Preferential Localization of Calcium-Activated Neutral Protease in Epithelial Tissues Masami Hayashi, Yoko Kasai, and Seiichi Kawashima	567
5-Hydroxyicosatetraenoate Promotes Ca ²⁺ and Protein Kinase C Mobilization in	
Neutrophils Joseph T. O'Flaherty and Jun Nishihira	575
Early (1 to 24 h) Plasma Atrial Natriuretic Factor Changes in the Rat during Antiorthostatic	
Hypokinetic Suspension Guillemette Gauquelin, Christophe Kazek,	
Anne-Marie Allevard, Rolande Garcin, Jacques Bonnod,	
Jolanta Gutkowska, Marc Cantin, and Claude Gharib	582
New Signal Transduction Mechanisms of Atrial Natriuretic Factor: Inhibition of	
Phosphorylation of Protein Kinase C and a 240 kDa Protein in Adrenal Cortical Plasma	
Membrane by cGMP Dependent and Independent Mechanisms	
K. N. Pandey, T. Inagami, P. R. Girard, J. F. Kuo, and K. S. Misono	589
Degradation of Type I Collagen Films by Mouse Osteoblasts Is Stimulated by 1,25-	
Dihydroxyvitamin D ₃ and Inhibited by Human Recombinant Tissue Inhibitor of	
Metalloproteinases Brian M. Thomson, Susan J. Atkinson,	
John J. Reynolds, and Murray C. Meikle	596
EGF Receptors on TEA3A1 Endocrine Thymic Epithelial Cells	
Le Sun, Ginette Serrero, Arthur Piltch, and Jun Hayashi	603
The B-DNA to Z-DNA Transition in Alkali and Tetraalkylammonium Salts Correlated with	
Cation Effects on Solvent Structure Richard S. Preisler	609
Nucleotide Sequence of a Full-Length cDNA for Human Fibroblast Poly(ADP-ribose)	
Polymerase Kazuhiko Uchida, Toshiro Morita, Takako Sato, Tsutomu Ogura,	
Rumiko Yamashita, Shigeru Noguchi, Hisanori Suzuki, Hiroshi Nyunoya,	617
Masanao Miwa, and Takashi Sugimura	617
Two Novel Endogenous Digoxin-like Immunoreactive Substances Isolated from Human Plasma Ultrafiltrate Amitava Dasgupta, Kiang-Teck Yeo, Sohail Malik,	
Plasma Ultrafiltrate Amitava Dasgupta, Kiang-Teck Yeo, Sohail Malik, Permindar Sandu, Suhail Ahmad, and Margaret Kenny	623
i ci minuai banuu, bunuu Annuu, ana mai kali kenny	023

Improvement of Cytotoxicity of Tumor Necrosis Factor by Increase in Basicity of its N- Terminal Region Gen-Ichiro Soma, Namiko Kitahara, Yoshiaki Tsuji,	
Mikio Kato, Haruyuki Oshima, Tetsuya Gatanaga, Hiroyuki Inagawa,	600
Katsuo Noguchi, Yoshiyuki Tanabe, and Den'ichi Mizuno	629
Arachidonic Acid and 15(S)-Hydroxy-5,8,11-cis-13-trans-eicosatetraenoic Acid Modulate	
Human Polymorphonuclear Neutrophil Activation by Monocyte-Derived Neutrophil Activating Factor Robert J. Smith, Laurel M. Sam, James M. Justen,	
Gordon L. Bundy, Francis A. Fitzpatrick, and Michael A. Wynalda	636
Prostaglandin Dehydrogenase Activity of Purified Rat Liver 3α-Hydroxysteroid	030
Dehydrogenase Trevor M. Penning and Robert B. Sharp	646
Inhibition of Protein Kinase C Activity by the Leishmania donovani Lipophosphoglycan	040
Tessie B. McNeely and Salvatore J. Turco	653
Characterization and Interactions of a Fragment of the Core Protein of the Small	033
Proteoglycan (PGII) from Bovine Tendon	
Kathryn G. Vogel, Thomas J. Koob, and Larry W. Fisher	658
w-Oxidation Products of Leukotriene E ₄ in Bile and Urine of the Monkey	050
Howard A. Ball and Dietrich Keppler	664
Occurrence of a New Enzyme Catalyzing the Direct Conversion of N^G, N^G -Dimethyl-L-	
arginine to L-Citrulline in Rats Tadashi Ogawa, Masumi Kimoto,	
and Kei Sasaoka	671
Structures and Biological Activities of Three Synaptic Antagonists from Orb Weaver Spider	
Venom M. E. Adams, R. L. Carney, F. E. Enderlin, E. T. Fu, M. A. Jarema,	
J. P. Li, C. A. Miller, D. A. Schooley, M. J. Shapiro, and V. J. Venema	678
Inhibition of Mitochondrial Respiration by Analogs of 4-Phenylpyridine and 1-Methyl-4-	
phenylpyridinium Cation, the Neurotoxic Metabolite of MPTP	
Charles L. Hoppel, David Greenblatt, Hung-chi Kwok,	
Pramod K. Arora, Malvinder P. Singh, and Lawrence M. Sayre	684
Butryic Acid Analogs Augment γ Globin Gene Expression in Neonatal Erythroid	
Progenitors S. P. Perrine, B. A. Miller, M. F. Green, R. A. Cohen,	
N. Cook, C. Shackleton, and D. V. Faller	694
Differential Effects of Phorbol Ester and Diacylglycerols on Inositol Phosphate Formation	
in C62B Glioma Cells R. C. Brooks, P. Morell, J. J. DeGeorge,	
K. D. McCarthy, and E. G. Lapetina	701
Poly(ADP-ribose) Synthetase Is Phosphorylated by Protein Kinase C in Vitro	
Yasuharu Tanaka, Samuel S. Koide, Koichiro Yoshihara, and Tomoya Kamiya	709
Inhibition of Protein Kinase C by Antineoplastic Agents: Implications for Drug Resistance	710
Sanjeewani T. Palayoor, Jeffrey M. Stein, and William N. Hait	718
A Biological Response Modifier, PSK, Inhibits Human Immunodeficiency Virus Infection	
in Vitro Tadafumi S. Tochikura, Hideki Nakashima,	726
Kunitaka Hirose, and Naoki Yamamoto Production of IGF-Binding Proteins by Vascular Endothelial Cells	120
Robert S. Bar, Leonard C. Harrison, Robert C. Baxter, Mary Boes,	
Brian L. Dake, Barbara Booth, and Alison Cox	734
Staurosporine, a Potent Protein Kinase C Inhibitor, Fails to Inhibit 12-0-	134
Tetradecanoylphorbol-13-acetate-Caused Ornithine Decarboxylase Induction in	
Isolated Mouse Epidermal Cells Isolated Mouse Epidermal Cells Itsumi Kiyoto, Satoshi Yamamoto,	
Eriko Aizu, and Ryuichi Kato	740
Effect of an Inhibitor of Protein Kinase C on Human Polymorphonuclear Leukocyte	
Degranulation William Salzer, Craig Gerard, and Charles McCall	747
7-Ethoxyresorufin-O-deethylase Activity in Human Hair Roots: A Potential Marker for	•
Toxifying Species of Cytochrome P-450 Isozymes	
H. F. Merk, H. Mukhtar, B. Schutte, I. Kaufmann, M. Das, and D. R. Bickers	755
Heat Shock Triggers Rapid Protein Phosphorylation in Soybean Seedings	
Hari B. Krishnan and Steven G. Pueppke	762
Influence of Calmodulin Antagonist (Stelazine) on Agonist-Induced Calcium Mobilization	

Gundu H. R. Rao 768

and Platelet Activation

Structural Requirements of Diacylglycerols for Binding and Activating Phospholipid- Dependent, Ca ²⁺ -Sensitive Protein Kinase David E. Kerr, Lon F. Kissinger, Larry E. Gentry, A. F. Purchio, and Mohammed Shoyab	776
Bone-Derived and Recombinant Transforming Growth Factor β's Are Potent Inhibitors of Tumor Cell Growth Jane E. Ranchalis, Larry Gentry, Yasushi Ogawa,	
Saeid M. Seyedin, John McPherson, A. Purchio, and Daniel R. Twardzik	783
Base Stacking and Molecular Polarizability: Effect of a Methyl Group in the 5-Position of	
Pyrimidines Lawrence C. Sowers, Barbara Ramsay Shaw, and W. David Sedwick	790
A Unique Specificity of a Sailic Acid Binding Lectin, Achatinin _H , from the Hemolymph of	
Achatina fulica Snail Chitra Mandal and Sujata Basu	795
Platelet-Activating Factor Receptor Antagonists Inhibit Mitogen-Induced Human Peripheral Blood T-Cell Proliferation	
Paola Patrignani, Salvatore Valitutti, Franca Aiello, and Piero Musiani	802
IGF-2 Stimulated Growth Mediated by the Somatomedin Type 2 Receptor Michael Tally, Choh Hao Li, and Kerstin Hall	811
Multiple Oligosaccharide Chains in the Voltage-Sensitive Na Channel from <i>Electrophorus</i> electricus: Evidence for α-2,8-Linked Polysialic Acid	
William M. James and William S. Agnew	817
Partial Assignment of Disulfide Pairs in Neurophysins	
Sudhir Burman, Esther Breslow, Brian T. Chait, and Tanuja Chaudhary	827
Antibodies That Recognize Phosphodiester-Linked α-N-Acetylglucosamine-1-phosphate	
Residues Donald J. Finn and Gary L. Gustafson	834
Antisera against the 3-17 Sequence of Rat Goi Recognize Only a 40 kDa G-Protein in Brain	
J. Lang and T. Costa	838
Design, Synthesis, and Bioassays of Antagonists of LHRH Which Have High Antiovulatory	
Activity and Release Negligible Histamine Anders Ljungqvist,	
Dong-Mei Feng, Pui-Fun Louisa Tang, Minoru Kubota, Tadashi Okamoto,	040
Yawen Zhang, Cyril Y. Bowers, William A. Hook, and Karl Folkers	849
Human P-450IA1 Upstream Regulatory Sequences Expressing the Chloramphenicol	
Acetyltransferase Gene: Effect of Ha-MSV Enhancer and Comparison of Transient with Stable Transformation Assays Anil K. Jaiswal, Lisa A. Neuhold,	
and Daniel W. Nebert	857
The Excretion of Leukotriene E ₄ into Urine following Inhalation of Leukotriene D ₄ by	057
Human Individuals Jan Verhagen, Elisabeth H. Bel, Gerarda M. Kijne,	
Peter J. Sterk, Pieter L. B. Bruynzeel, Gerrit A. Veldink,	
and Johannes F. G. Vliegenthart	864
Presence of Different Types of Procollagen Messenger RNAs in Human Hepatoma Cell	
Lines Yutaka Inagaki, Youko Tsunokawa, Hiromi Sakamoto,	
Setsuo Hirohashi, Kenichi Kobayashi, Nobu Hattori, Francesco Ramirez,	
Masaaki Terada, and Takashi Sugimura	869
Polyethylene Glycol Derivative-Modified Cholesterol Oxidase Soluble and Active in	
Benzene T. Yoshimoto, A. Ritani, K. Ohwada, K. Takahashi,	076
Y. Kodera, A. Matsushima, Y. Saito, and Y. Inada	876
Purification of the Human Alveolar Macrophage Mannose Receptor	883
Jane D. Stephenson and Virginia L. Shepherd Diurnal Variation of HMG-CoA Reductase Activity in Rat Liver Peroxisomes	903
Nick Rusnak and Skaidrite K. Krisans	890
LETTER TO THE EDITOR	0,0
The Cell-Free Interaction between Chromaffin Granules and Plasma Membranes: An	
in Vitro Model for Exocytosis? Jan De Block and Werner De Potter	896
ERRATUM	
Volume 144, Number 3, May 14, 1987: Stefano Ferrari and Lorenzo A. Pinna,	
"Phosphorylation of Protamines by Protein Kinase C: Involvement of Sites Which	
Are Phosphorylated in Vivo and Are Not Affected by cAMP-Dependent Protein	000
Kinase," pp. 1324–1331	898

Atrial Myocytes in Synthesis of Atrial Natriuretic Peptide	
Hiroaki Matsubara, Yukio Hirata, Hiroki Yoshimi, Shoichiro Takata,	
Yasuyuki Takagi, Yoko Yamane, Yukihisa Umeda, Mitsushige Nishikawa, and Mitsuo Inada	1030
Inhibition of Plant Acetyl-Coenzyme A Carboxylase by the Herbicides Sethoxydim and	
Haloxyfop J. D. Burton, J. W. Gronwald, D. A. Somers, J. A. Connelly,	
B. G. Gengenbach, and D. L. Wyse	1039
Degradation of Tryptamine in Pig Brain: Identification of a New Condensation Product	
Rudy Susilo, Gerhard Höfle, and Hans Rommelspacher	1045
	1043
High Affinity Binding of the Large T Protein of Polyoma Virus to a Genomic Mouse DNA	
Sequence Cedric Galup, Pierre Léopold, Laura Trejo-Avila, Philip El Baze,	1050
Minoo Rassoulzadegan, Patrick Gaudray, and François Cuzin	1053
Heat-Shock Protein Synthesis by Human Peripheral Mononuclear Cells from SLE Patients	
Yasuhiro Deguchi, Shigeru Negoro, and Susumu Kishimoto	1063
Characterization of Na ⁺ /Mg ²⁺ Antiport by Simultaneous ²⁸ Mg ²⁺ Influx	
T. Günther and J. Vormann	1069
The Effect of α -Ecdysone and Phenobarbital on the α -Ecdysone 20-Monooxygenase of	
House Fly Larva Jayanthi Srivatsan, Toyoko Kuwahara, and Moises Agosin	1075
The Hydrophobic Cationic Cyanine Dye Inhibits Oxidative Phosphorylation by Inhibiting	
ADP Transport, Not by Electrophoretic Transfer, into Mitochondria	
Yasuo Shinohara, Hideaki Nagamune, and Hiroshi Terada	1081
Atrial Natriuretic Peptide Deposited as Atrial Amyloid Fibrils Björn Johansson,	1001
Christer Wernstedt, and Per Westermark	1097
	1007
Effect of Chronic Isoproterenol Exposure on Insulin Binding and Insulin-Stimulated Hexose	
Transport in Isolated Rat Adipocytes Alexander Sandra	
and Sandra J. Marshall	1093
Depletion of Cellular β -Hexosaminidase by Imipramine Is Prevented by Dexamethasone:	
Implications for Treating Psychotic Hexosaminidase-A Deficient Patients	
Ruth Navon and Dana Baram	1098
Amino Acid Sequence Analysis of the Neuronal Type II Calmodulin-Dependent Protein	
Kinase by Tandem Mass Spectrometry Harry LeVine III, Donald F. Hunt,	
Nian-Zhou Zhu, and Jeffrey Shabanowitz	1104
Inhibition of Human Neutrophil Activation by the Allergic Mediator Release Inhibitor,	
CI-922: Mechanism of Inhibitory Activity Clifford D. Wright,	
Michael D. Hoffman, David O. Thueson, and Mary Carol Conroy	1110
Differential Effects of Cycloheximide on Rat Liver Cytochrome P-450 Gene Transcription	1110
in the Whole Animal and Hepatoma Cell Culture	
	1110
G. Jayarama Bhat, P. N. Rangarajan, and G. Padmanaban	1110
Synthesis and Characterization of O^6 -(2-Chloroethyl)guanine: A Putative Intermediate in	
the Cytotoxic Reaction of Chloroethylnitrosoureas with DNA	
Scott Parker, Marion C. Kirk, and David B. Ludlum	1124
Tissue Specificity and Developmental Expression of Rat Osteopontin	
Kyonggeun Yoon, Robert Buenaga, and Gideon A. Rodan	1129
Ryanodine Does Not Affect the Potassium Channel from the Sarcoplasmic Reticulum of	
Skeletal Muscle A. C. Campos de Carvalho and Samuel Cukierman	1137
MPTP, the Neurotoxin Inducing Parkinson's Disease, Is a Potent Competitive Inhibitor of	
Human and Rat Cytochrome P-450 Isozymes (P450bufl, P450db1) Catalyzing	
Debrisoquine 4-Hydroxylation Raymonde Fonne-Pfister, Mario J. Bargetzi,	
and Urs A. Meyer	1144
Spin-Label Studies of Glycogen Phosphorylase Hosted in Microemulsion Droplets	• •
Constantine T. Cazianis, Aristotelis Xenakis, and Athanasios E. Evangelopoulos	1151
Profound Elevation of Ventricular and Pulmonary Atriopeptin in a Model of Heart Failure	
Mark G. Currie, William F. Oehlenschlager, and David T. Kurtz	1158
	1170
A Thyroxine Binding Globulin (TBG)-like Protein in the Sera of Developing and Adult Rats Lia Savu, Roger Vranckx, Michelle Maya, and Emmanuel A. Nunez	1165

Ventricular Myocytes from Neonatal Rats Are More Responsive to Dexamethasone than

Latent Forms of Type-1 Protein Phosphatase in Rabbit Skeletal Muscle	
Philip A. Gruppuso, Carol L. Shriner, and David L. Brautigan Revertant of the Yeast Schizosaccharomyces pombe with Modified α Subunits of	11/4
Mitochondrial ATPase-ATPsynthase: Impaired Nucleotide Interactions with Soluble	
and Membrane-Bound Enzyme P. Falson, A. Di Pietro, D. Darbouret,	
J. M. Jault, D. C. Gautheron, M. Boutry, and A. Goffeau	1182
Isovalerylcarnitine Is a Specific Activator of Calpain of Human Neutrophils	
S. Pontremoli, E. Melloni, M. Michetti, B. Sparatore,	
F. Salamino, N. Siliprandi, and B. L. Horecker	1189
The Dissociation of Carbon Monoxide from the α and the β Subunits of Human	
Carbonmonoxy Hemoglobin Michele Samaja and Ermanna Rovida	1196
Inhibition of Yeast Binding to Mouse Peritoneal Macrophages by Wheat Germ Agglutinin:	
A Novel Effect of the Lectin on Phagocytic Cells	
Edward L. Kean and Nathan Sharon	1202
The Corticotropin Releasing Hormone Gene Is Expressed in Human Placenta	
M. Grino, G. P. Chrousos, and A. N. Margioris	1208
Growth-Inhibitory Protein Present in Rabbit Serum, Which Is More Effective on	
Tumorigenic Rat Liver Epithelial Cells than on Non-tumorigenic Ones: Its Species,	
and Mode of Existence Keisuke Mashima, Takashi Kimura, Kaoru Miyazaki,	
Jinpei Yamashita, and Takekazu Horio	1215
Evidence that Guanine-Nucleotide Binding Regulatory Proteins Couple Cell-Surface	
Receptors to the Breakdown of Inositol-Containing Lipids during T-Lymphocyte	
Mitogenesis Anthony R. Mire-Sluis, A. Victor Hoffbrand,	
and R. Gitendra Wickremasinghe	1223
Localization of GTP Cyclohydrolase I in Human Peripheral Blood Smears Using a Specific	
Monoclonal Antibody and an Immune-Alkaline Phosphatase Labeling Technique	
G. Schoedon, HCh. Curtius, and A. Niederwieser	1232
Evidence of in Vivo w-Oxidation of Peptide Leukotrienes in the Rat: Biliary Excretion of	
20-CO ₂ H N-Acetyl LTE ₄ A. Foster, B. Fitzsimmons, J. Rokach, and G. Letts	1237
Human Relaxin Increases Cyclic AMP Levels in Cultured Anterior Pituitary Cells	
Michael J. Cronin, Tamie Malaska, and Charles Bakhit	1246
2',3'-Dideoxynucleoside Phosphorylation by Deoxycytidine Kinase from Normal Human	
Thymus Extracts: Activation of Potential Drugs for AIDS Therapy	
Mark A. Johnson, David G. Johns, and Arnold Fridland	1252
In Vitro Interactions between Polyamines and Pectic Substances	
Dario D'Orazi and Nello Bagni	1259
The Effect of Heparin on Fibronectin and Thrombospondin Synthesis by Human Smooth	
Muscle Cells Bernadette Lyons-Giordano, Helen Conaway,	
and Nicholas A. Kefalides	1264
1,25-Dihydroxyvitamin D ₃ Regulates Tubulin Expression in Chick Intestine	
Ilka Nemere, Georgia Theofan, and Anthony W. Norman	1270
Vitamin E Protects Proteins against Free Radical Damage in Lipid Environments	
Roger T. Dean and Kevin H. Cheeseman	1277
Demonstration of Inositol 1,3,4,5-Tetrakisphosphate Receptor Binding	
Anne B. Theibert, Surachai Supattapone, Paul F. Worley, Jay M. Baraban,	
James L. Meek, and Solomon H. Snyder	1283
Protein Kinase C Mediates Human Neutrophil Cytotoxicity Riccardo Gavioli,	
Susanna Spisani, Annalisa Giuliani, and Serena Traniello	1290
The Effects of Corticotrophin (ACTH ₁₋₂₄), Cyclic AMP and TPA (12-0-	
Tetradecanoylphorbol-13-acetate) on DNA Replication and Proliferation of Primary	
Rabbit Adrenocortical Cells in a Synthetic Medium Lia Menapace,	
Ubaldo Armato, and James F. Whitfield	1295
Demonstration of Phosphatidylinositol Anchors on Ly-6 Molecules by Specific	
Phospholipase C Digestion and Gel Electrophoresis in Octylglucoside	
Judith W. Hammelburger, Roger G. E. Palfree, Sonia Sirlin,	
and Ulrich Hämmerling	1304

Releasing Hormone-Stimulated Pituitary Gonadotrophs Zvi Naor,	
Iris Schvartz, Eli Hazum, Anat Azrad, and Jacob Hermon	1312
A Photoreactive Competitive Inhibitor of the Human Lysosomal Neuraminidase in Cultured	
Skin Fibroblasts Thomas G. Warner	1323
Synthesis of a New Photoreactive C5a Analog That Permits Identification of the Ligand	
Binding Component of the Granulocyte C5a Receptor	
Richard J. Johnson and Dennis E. Chenoweth	1330
Additive Growth-Inhibitory Effects of DL-α-Difluoromethylornithine and Antiestrogens on	
	1338
Endotoxin-Induced Secretion of an Active Plasminogen Activator Inhibitor from Bovine	
Pulmonary Arterial and Aortic Endothelial Cells David J. Crutchley,	1246
Lobella B. Conanan, and Una S. Ryan	1340
Formation of 11\beta-Hydroxysteroids Requires the Integrity of the Microfilament Network in	
Adrenocortical Cells Marc Feuilloley, Pierre Netchitailo, Catherine Delarue, Isabelle Lihrmann, and Hubert Vaudry	1354
Protein Heterogeneity in Rabbit Liver Ferritin: Two Types of Molecular Dimers	1334
Paolo Santambrogio and William H. Massover	1363
Isolation and Partial Characterization of Plasma Membrane Fatty Acid Binding Proteins	1303
from Myocardium and Adipose Tissue and Their Relationship to Analogous Proteins	
in Liver and Gut B. J. Potter, D. Stump, W. Schwieterman, D. Sorrentino,	
L. N. Jacobs, C-L. Kiang, J. H. Rand, and P. D. Berk	1370
Metabolism of the Mutagen MeIQx in Vivo: Metabolite Screening by Liquid	
Chromatography-Thermospray Mass Spectrometry	
Nigel J. Gooderham, David Watson, Jeremy C. Rice, Stephen Murray,	
Graham W. Taylor, and Donald S. Davies	1377
Activators of Protein Kinase C Induce Myotonia by Lowering Chloride Conductance in	
MINISTE THE TAXABLE PROPERTY OF THE PARTY OF	1383
A Calmodulin Dependent Protein Kinase in Parietal Cells Margret Oddsdottir,	1200
Irvin M. Modlin, Karl A. Zucker, Michael J. Zdon, and James R. Goldenring	1390
GTP-Binding Proteins in Brain and Neutrophil Are Tethered to the Plasma Membrane via	
Their Amino Termini Brock Eide, Peter Gierschik, Graeme Milligan,	1200
Ian Mullaney, Cecilia Unson, Paul Goldsmith, and Allen Spiegel Protein Sequence Analysis Studies on the Low Molecular Weight Hydrophobic Proteins	1370
Associated with Bovine Pulmonary Surfactant Robert W. Olafson, Ute Rink, Sandra Kielland, Shou-Hwa Yu,	
James Chung, Paul G. R. Harding, and Fred Possmayer	1406
Inhibition by BN 52021 (Ginkgolide B) of the Binding of ³ H-Platelet-Activating Factor to	1.00
Human Neutrophil Granulocytes Éva Földes-Filep, Pierre Braquet,	
and János Filep	1412
Analysis of Proinsulin Conversion Activated by Prior Glucose: Evidence that Glucose	
Stimulates Synthesis of the Conversion Enzyme S. Nagamatsu,	
and G. M. Grodsky	1418
Antibodies against Mammary Derived Growth Inhibitor (MDGI) React with a Fibroblast	
Growth Inhibitor and with Heart Fatty Acid Binding Protein	
Frank-D. Böhmer, Quan Sun, Maren Pepperle, Thomas Müller,	1425
Frank-D. Böhmer, Quan Sun, Maren Pepperle, Thomas Müller, Ulf Eriksson, John L. Wang, and Richard Grosse	1425
Frank-D. Böhmer, Quan Sun, Maren Pepperle, Thomas Müller, Ulf Eriksson, John L. Wang, and Richard Grosse Specific Opioid Binding Sites for Dermorphin in Rat Brain: A Radioreceptor Assay Using	1425
Frank-D. Böhmer, Quan Sun, Maren Pepperle, Thomas Müller, Ulf Eriksson, John L. Wang, and Richard Grosse Specific Opioid Binding Sites for Dermorphin in Rat Brain: A Radioreceptor Assay Using the Tritiated Hormone as Primary Ligand Mohamed Amiche, Antoine Delfour,	
Frank-D. Böhmer, Quan Sun, Maren Pepperle, Thomas Müller, Ulf Eriksson, John L. Wang, and Richard Grosse Specific Opioid Binding Sites for Dermorphin in Rat Brain: A Radioreceptor Assay Using the Tritiated Hormone as Primary Ligand Mohamed Amiche, Antoine Delfour, Jean Louis Morgat, Jean Roy, Jean Houvet, and Pierre Nicolas	
Frank-D. Böhmer, Quan Sun, Maren Pepperle, Thomas Müller, Ulf Eriksson, John L. Wang, and Richard Grosse Specific Opioid Binding Sites for Dermorphin in Rat Brain: A Radioreceptor Assay Using the Tritiated Hormone as Primary Ligand Mohamed Amiche, Antoine Delfour, Jean Louis Morgat, Jean Roy, Jean Houvet, and Pierre Nicolas Selective Localization of Vasoactive Intestinal Peptide and Substance P in Human	
Frank-D. Böhmer, Quan Sun, Maren Pepperle, Thomas Müller, Ulf Eriksson, John L. Wang, and Richard Grosse Specific Opioid Binding Sites for Dermorphin in Rat Brain: A Radioreceptor Assay Using the Tritiated Hormone as Primary Ligand Mohamed Amiche, Antoine Delfour, Jean Louis Morgat, Jean Roy, Jean Houvet, and Pierre Nicolas	1432
Frank-D. Böhmer, Quan Sun, Maren Pepperle, Thomas Müller, Ulf Eriksson, John L. Wang, and Richard Grosse Specific Opioid Binding Sites for Dermorphin in Rat Brain: A Radioreceptor Assay Using the Tritiated Hormone as Primary Ligand Mohamed Amiche, Antoine Delfour, Jean Louis Morgat, Jean Roy, Jean Houvet, and Pierre Nicolas Selective Localization of Vasoactive Intestinal Peptide and Substance P in Human Eosinophils Jahangir Aliakbari, Sunil P. Sreedharan, Christoph W. Turck, and Edward J. Goetzl	1432
Frank-D. Böhmer, Quan Sun, Maren Pepperle, Thomas Müller, Ulf Eriksson, John L. Wang, and Richard Grosse Specific Opioid Binding Sites for Dermorphin in Rat Brain: A Radioreceptor Assay Using the Tritiated Hormone as Primary Ligand Mohamed Amiche, Antoine Delfour, Jean Louis Morgat, Jean Roy, Jean Houvet, and Pierre Nicolas Selective Localization of Vasoactive Intestinal Peptide and Substance P in Human Eosinophils Jahangir Aliakbari, Sunil P. Sreedharan, Christoph W. Turck,	1432 1440

Effect of Phorbol Ester on Stimulus-Secretion Coupling Mechanisms in Gonadotropin

Tabl	e	οf	Co	nte	nts

Contains a Neurofilament-Binding Site Gregory Flynn, John C. Joly, and Daniel L. Purich	1453
Effect of Spermine on Tyrosine Hydroxylase Activity before and after Phosphorylation by Cyclic AMP-Dependent Protein Kinase Kiyomi Kiuchi, Kazutoshi Kiuchi,	1433
Akifumi Togari, and Toshiharu Nagatsu	1460
Different Sensitivities of Ca ²⁺ , Calmodulin-Dependent Cyclic Nucleotide Phospho-	1400
diesterases from Rabbit Aorta and Brain to Dihydropyridine Calcium Channel	
Blockers Satoshi Matsushima, Toshio Tanaka, Masahiro Saitoh,	
Masato Watanabe, and Hiroyoshi Hidaka	
Sepiapterin Reductase in Cultured Human Cells Juan Ferré and Edwin W. Naylor The Relation Coults and COMP. Plant A. M. Sepiapterin Reductase in Cultured Human Cells	1475
The Role of Nitric Oxide and cGMP in Platelet Adhesion to Vascular Endothelium	1.400
Marek W. Radomski, Richard M. J. Palmer, and Salvador Moncada Effect of GDP on the Interactions between Chloroplast EF-Ts and Chloroplast and	1482
Escherichia coli EF-Tu Gertrude H. Spremulli and Linda L. Spremulli	1400
Multiple Thyroid Hormone Binding Sites on Male Rat Liver Nuclear Matrices	1470
Jaya T. Venkatraman and Yvonne Lefebvre	1496
Transforming Growth Factor Type β in Normal Human Urine Gouri Ranganathan,	1470
Russette Lyons, Nai-Siang Jiang, and Harold Moses	1503
β-Endorphin Regulation of FSH-Stimulated Inhibin Production Is a Component of a Short	
Loop System in Testis Patricia L. Morris, Wylie W. Vale, and C. Wayne Bardin	1513
Metals and Activity of Bovine Heart Cytochrome c Oxidase Are Independent of Polypeptide	
Subunits III, VII, a, and b Gerald L. Yewey and Winslow S. Caughey	1520
Generation of H ₂ O ₂ Is Regulated by Cytoplasmic Free Calcium in Cultured Porcine	
Thyroid Cells Nobuyuki Takasu, Takashi Yamada, and Yoshifusa Shimizu	
In Vivo Generation of 5-Lipoxygenase Products in Frogs and Toads Floyd A. Green Atrial Natriuretic Prohormone Peptides 1-30, 31-67, and 79-98 Vasodilate the Aorta	1533
David L. Vesely, James S. Norris, J. Michael Walters, Robert R. Jespersen,	
and Dennis A. Baeyens	1540
ERRATA CHARLES THE BACKSTAL BA	1340
Volume 146, Number 2, July 31, 1987: Hisanori Suzuki, Kazuhiko Uchida, Hiroshi	
Shima, Takako Sato, Takashi Okamoto, Teruyuki Kimura, and Masanao Miwa,	
"Molecular Cloning of cDNA for Human Poly(ADP-ribose) Polymerase and	
Expression of Its Gene during HL-60 Cell Differentiation," pp. 403-409	1549
Volume 147, Number 1, August 31, 1987: Jean-Marc Pelosin, Isabelle Vilgrain, and	
Edmond M. Chambaz, "A Single Form of Protein Kinase C Is Expressed in Bovine	
Adrenocortical Tissue, as Compared to Four Chromatographically Resolved Isozymes in Rat Brain," pp. 382-391	1550
Volume 148, Number 1, October 14, 1987: Dipak K. Das, Richard M. Engelman,	1550
Ronald Clement, Hajime Otani, M. Renuka Prasad, and Parinam S. Rao, "Role of	
Xanthine Oxidase Inhibitor as Free Radical Scavenger: A Novel Mechanism of	
Action of Allopurinol and Oxypurinol in Myocardial Salvage," pp. 314-319	1550
Author Index for Volume 148	1551
Volume 149, Number 1, November 30, 1987	
AUTHOR INDEX, Volume 149, Number 1, November 30, 1987	ii
Tumor Necrosis Factor Increases in Vivo Glucose Utilization of Macrophage-Rich	
Tissues Károly Mészáros, Charles H. Lang, Gregory J. Bagby,	
and John J. Spitzer The Amine Acid Sequence of the Physical Sequence o	1
The Amino Acid Sequence of the Phosphorylation Domain of the Erythrocyte Ca ²⁺ ATPase Peter James, Elena I. Zvaritch, Michail I. Shakhparonov,	

The 28,000 M_r Microtubule-Binding Domain of Microtubule-Associated Protein-2 Also

John T. Penniston, and Ernesto Carafoli

Complex and Gene 8 Protein of the Filamentous Phage fd	
Beverly A. Boehler-Kohler and Ihab Rasched	13
Spermidine and Spermine Stimulate the Transport of the Precursor of Ornithine	
Carbamoyltransferase into Rat Liver Mitochondria	
Carmen González-Bosch, Vicente J. Miralles, José Hernández-Yago, and Santiago Grisolia	21
Evidence for Nucleoside Channeling in Vivo: Deoxythymidine Incorporation into Rat	
Liver dTTP and Nuclear Matrix DNA	
P. L. Panzeter, J. L. Etheredge, D. E. Kizer, and D. P. Ringer	27
Identification of Functional Regions in the C-Terminal Domain of Escherichia coli Ribosomal Protein S1 Using Monoclonal Antibodies	
Véronique Hahn, Jean-Pierre Ebel, and Patrick Stiegler	34
Estimation of Intramitochondrial pCa and pH by Fura-2 and 2,7-Biscarboxyethyl-5(6)-carboxyfluorescein Fluorescence	
Michael H. Davis, Ruth A. Altschuld, Dennis W. Jung, and Gerald P. Brierley	40
Purification of Cytochrome b_{558} from Bovine Polymorphonuclear Neutrophils Françoise Morel and Pierre V. Vignais	46
Correlation between Phosphorylation and Kinase Activity of a Tyrosine Protein Kinase:	
P56 ^{lck} I. Boulet, R. Fagard, and S. Fischer	56
Atrial Natriuretic Peptide Receptors in Sympathetic Ganglia: Biochemical Response	20
and Alterations in Genetically Hypertensive Rats	
J. Silvio Gutkind, Masaki Kurihara, Eero Castrén, and Juan M. Saavedra	65
3-Methylindole Inhibits Lipid Peroxidation	
James D. Adams, Jr., Mikel C. Heins, and Garold S. Yost	73
Cantharidin Poisoning Associated with Specific Binding Site in Liver	
Michael J. Graziano, Andrew L. Waterhouse, and John E. Casida	79
The Sugar-Specific Adhesion/Deadhesion Apparatus of the Marine Bacterium Vibrio	
furnissii Is a Sensorium That Continuously Monitors Nutrient Levels in the	
Environment Charles Yu, Andy M. Lee, and Saul Roseman	86
Thymine Glycol-DNA Glycosylase/AP Endonuclease of CEM-C1 Lymphoblasts: A	
Human Analog of Escherichia coli Endonuclease III	93
Keunmyoung Lee, William H. McCray, Jr., and Paul W. Doetsch	93
Immunological and Spectral Characterization of Partly Purified Cytochrome Oxidase	
from the Cyanobacterium Synechocystis 6714	102
Marnik Wastyn, Arno Achatz, Maria Trnka, and Günter A. Peschek Prostaglandin $F_{2\alpha}$ Initiates Polyphosphatidylinositol Hydrolysis and Membrane	102
Translocation of Protein Kinase C in Swine Ovarian Cells	
Johannes D. Veldhuis. With the technical assistance of Diana Juchter and	
James Garmey.	112
Dependence of ATP Citrate Lyase Activity on Cell Density of Isolated Rat Hepatocytes	
Anne Voss, Greg Reinhart, Susan Hogan, and Karla Roehrig	118
A Novel Subtype of Muscarinic Receptor Identified by Homology Screening	
Thomas Braun, Peter R. Schofield, Brenda D. Shivers,	
Dolan B. Pritchett, and Peter H. Seeburg	125
Follistatin Specifically Inhibits Pituitary Follicle Stimulating Hormone Release in Vitro	
Shao-Yao Ying, Ann Becker, Geoff Swanson, Phil Tan, Nicholas Ling,	
Fred Esch, Naoto Ueno, Shunichi Shimasaki, and Roger Guillemin	133
Internal Anion Binding Site and Membrane Potential Dominate the Regulation of Proton	
Pumping by the Chromaffin Granule ATPase Y. Moriyama and N. Nelson	140
Protein Kinase C-Mediated Feedback Inhibition of the Ca ²⁺ Response at the EGF	1 4 5
Receptor A. Pandiella, L. M. Vicentini, and J. Meldolesi Extracellular Ca ²⁺ Induces a Rapid Increase in Cytoplasmic Free Ca ²⁺ in Pancreatic	145
β-Cells Thomas Nilsson, Per Arkhammar, and Per-Olof Berggren	152

Hybrid Molecules Containing the A-Domain of Insulin-like Growth Factor-I and the	
β-Chain of Insulin Have Increased Mitogenic Activity Relative to Insulin	
Lucy Y-H. Tseng, Gerald P. Schwartz, Maqsood Sheikh, Zen Zen Chen,	
Satish Joshi, Jai-Fang Wang, S. Peter Nissley, G. Thompson Burke,	
Panayotis G. Katsoyannis, and Matthew M. Rechler	672
Specific Binding Sites for [3H]Inositol(1,3,4,5)tetrakisphosphate on Membranes of	
HL-60 Cells Peter G. Bradford and Robin F. Irvine	680
A 29-kDa GTP-Binding Protein Expressed in Mouse Brain, Lung, Kidney, Spleen, and	
Transformed NIH3T3 Cells Hikaru Nagahara, Susumu Nishimura,	
Takashi Sugimura, and Hiroshi Obata	686
A Human Immunodeficiency Virus Type 1 Infection-Enhancing Factor in Seropositive	000
	(03
and William M. Mitchell	693
Partial Purification and Characterization of Thrombolamban, a 22,000-Dalton cAMP-	
Dependent Protein Kinase Substrate in Platelets Thomas H. Fischer	
and Gilbert C. White II	700
Thyrotropin Is a Potent Growth Factor for Normal Human Thyroid Cells in Primary	
Culture Pierre P. Roger and Jacques E. Dumont	707
Extraction of Osteocalcin from Fossil Bones and Teeth M. M. W. Ulrich,	
W. R. K. Perizonius, C. F. Spoor, P. Sandberg, and C. Vermeer	712
Protein Kinase C and Parietal Cell Function W. Beil, W. Mannschedel,	
and KFr. Sewing	720
Conformational Predictive Studies on the Activation Segment of Pancreatic	. =0
Procarboxypeptidases M. Vilanova, F. X. Avilés, J. Vendrell,	
and E. Méndez	729
Reduced Tumor Necrosis Factor-Induced Cytotoxicity by Inhibitors of the Arachidonic	149
	306
and Walter Fiers	735
The Isolation of Polypeptides with FSH Suppressing Activity from Bovine Follicular	
Fluid Which Are Structurally Different from Inhibin D. M. Robertson,	
R. Klein, F. L. de Vos, R. I. McLachlan, R. E. H. Wettenhall, M. T. W. Hearn,	
H. G. Burger, and D. M. de Kretser	744
Structural Homology of Human Complement Component C8 γ and Plasma Protein HC:	
Identity of the Cysteine Bond Pattern Jacques-Antoine Haefliger,	
Dieter Jenne, Keith K. Stanley, and Jürg Tschopp	750
Purification and Amino Acid Sequencing of NAF, a Novel Neutrophil-Activating Factor	
Produced by Monocytes Alfred Walz, Paola Peveri, Heinrich Aschauer,	
and Marco Baggiolini	755
Activation of Protein Kinase C by cis- and trans-Octadecadienoic Acids in Intact Human	
Platelets and Its Potentiation by Diacylglycerol Roland Seifert,	
Christoph Schächtele, and Günter Schultz	762
Translocation of Phospholipase A ₂ from Cytosol to Membranes Induced by 1-Oleoyl-2-	702
acetylglycerol in Serum-Free Cultured Macrophages T. Schonhardt	
	760
and E. Ferber	769
Microtubule-Associated Proteins Bind to 30- and 60-kDA Proteins of Rat Brain	
Mitochondria: Visualization by Ligand Blotting A. Rendon, D. Filliol,	
and V. Jancsik	776
Human Submandibular Gland Statherin and Basic Histidine-Rich Peptide Are Encoded	
by Highly Abundant mRNAs Derived from a Common Ancestral Sequence	
D. P. Dickinson, A. L. Ridall, and M. J. Levine	784
Histone Variant Synthesis Patterns in Confluent Populations of Human Diploid Cells of	
Different in Vitro Ages R. T. Dell'Orco and M. I. Worthington	791
Sycamore Amyloplasts Can Import and Process Precursors of Nuclear Encoded	
Chloroplast Proteins K. Strzalka, Jarunay Ngernprasirtsiri,	
A. Watanabe, and T. Akazawa	799

Demonstration and Structural Comparison of Receptors for Insulin-like Growth Factor-I and -II in Brain and Blood-Brain Barrier	
R. G. Rosenfeld, H. Pham, B. T. Keller, R. T. Borchardt, and W. M. Pardridge Occurrence of Ceramide-Glycanase in the Earthworm, Lumbricus terrestris	159
Yu-Teh Li, Yukitoshi Ishikawa, and Su-Chen Li Malignant Progression of a Transformed Rat Cell Line by Transfer of the v-fos Oncogene Toyokazu Kawano, Shun'ichiro Taniguchi, Kohji Nakamatsu,	167
Hiroyuki Sadano, and Tsuneo Baba Identification of an Arginine Vasopressin-like Diuretic Hormone from Locusta	173
migratoria Jacques P. Proux, Christine A. Miller, Jorge P. Li, Robert L. Carney, Adrien Girardie, Michel Delaage, and David A. Schooley	180
Monoclonal Antibodies to Bovine Growth Hormone Potentiate Effects of the Hormone on Somatomedin C Levels and Growth of Hypophysectomized Rats	
Michael Wallis, Margaret Daniels, Keith P. Ray, Janet D. Cottingham, and Roger Aston	187
Comparison of the Effects of Treatment with the Polyamine Analog N ¹ , N ⁸ -Bis(ethyl)spermidine or Difluoromethylornithine on the Topoisomerase II Mediated Formation of 4'-(9-Acridinylamino) Methanesulfon-m-anisidide Induced Cleavable Complex in the Human Lung Carcinoma Line NCI H157	
Steven C. Denstman, Stephanie J. Ervin, and Robert A. Casero, Jr. Early Inhibition of the Na ⁺ /K ⁺ -ATPase Ion Pump during Acetaminophen-Induced	194
Hepatotoxicity in Rat G. B. Corcoran, SJ. Chung, and D. E. Salazar Evidence for the Presence of Low Density and Very Low Density Lipoproteins in Human	203
Amniotic Fluid Activation of the Endoplasmic Reticulum Ca ²⁺ Pump of Pancreatic Acini by Ca ²⁺	208
Mobilizing Hormones Shmuel Muallem, Timothy G. Beeker, and Claus J. Fimmel	213
Tumor-Promoting Phorbol Esters Interfere with the Vasoactive Intestinal Peptide Receptor/Effector System in Rat Prostatic Epithelial Cells	213
F. Escudero, M. J. Carmena, and J. C. Prieto Synthetic Tumor-Derived Human Hypercalcemic Factor Exhibits Parathyroid Hormone-	221
like Vasorelaxation in Renal Arteries Raymond J. Winquist, Elizabeth P. Baskin, and George P. Vlasuk	227
A Defect in DNA Topoisomerase II Activity in Ataxia-Telangiectasia Cells Rahmah Mohamed, Surinder Pal Singh, Sharad Kumar, and Martin F. Lavin	233
The Effect of 1,25-Dihydroxyvitamin D3 Treatment on Calcitonin and Calcitonin Gene- Related Peptide mRNA Levels in Cultured Human Thyroid C-Cells	
Gilbert J. Cote, Douglas G. Rogers, Eileen S. C. Huang, and Robert F. Gagel Characterization of Primary Translation Products from Ovine and Rat Salivary Gland	239
mRNAs R. Nichols, Don M. Carlson, and Jack E. Dixon The Cell Surface Hyaluronate Binding Sites of Invasive Human Bladder Carcinoma Cells	244
Raymond E. Nemec, Bryan P. Toole, and Warren Knudson 12-Lipoxygenase from Bovine Polymorphonuclear Leukocytes, an Enzyme with	249
Leukotriene A ₄ -Synthase Activity Pauline Walstra, Jan Verhagen, Gerrit A. Veldink, and Johannes F. G. Vliegenthart	258
Band 3 and Ankyrin Homologs Are Present in Eye Lens: Evidence for All Major Erythrocyte Membrane Components in Same Nonerythroid Cell	266
David P. Allen, Philip S. Low, Alice Dola, and Harry Maisel An Antibody to the Receptor for Insulin-like Growth Factor I Inhibits the Growth of MCF-7 Cells in Tissue Culture	266
Quynh T. Rohlik, David Adams, Frederick C. Kull, Jr., and Steven Jacobs The Homology of Complement Factor C8 γ-Chain and α-1-Microglobulin	276
Lois T. Hunt, Andrzej Elzanowski, and Winona C. Barker	282

Human Proapolipoprotein A-I: Development of an Antibody to the Propeptide as a Probe of Apolipoprotein A-I Biosynthesis and Processing Ashok V. Hospattankar, Thomas Fairwell, Ettore Appella,	
Martha Meng, and H. Bryan Brewer, Jr. Apparent Molecular Weight of Substance P/Neurokinin-1 Receptors Determined Using a	289
Photoaffinity Labeled Probe, [(3'-125I) D-Tyr ⁰ , (4'-N ₃)Phe ⁸ , Nle ¹¹]-Substance P Than-Vinh Dam, Emanuel Escher, and Rémi Quirion	297
Fast Motility of Isolated Mammalian Auditory Sensory Cells Hans P. Zenner, Ulrike Zimmermann, and Alfred H. Gitter	304
Biological Screening of Monoclonal Antibodies	
Ralph A. Jacobson, J. Denry Sato, and Gordon H. Sato Tissue Specific Methylation of c-myc in Adult Chickens	309
C. Heinke, L. Andersen, S. Hagan, and K. S. Guise	313
Volume 149, Number 2, December 16, 1987	
AUTHOR INDEX, Volume 149, Number 2, December 16, 1987	iii
Inter- and Intramolecular Deuterium Isotope Effects on the Cytochrome P-450-	
Catalyzed Oxidative Dehalogenation of 1,1,2,2-Tetrachloroethane	
Dale B. Hales, Bert Ho, and John A. Thompson	319
Use of a Conserved Consensus Oligomer in the Identification of Cytochrome P-450	226
mRNAs Christopher Hassett and Curtis J. Omiecinski Signal Transduction in Plants: Evidence for the Involvement of Calcium and Turnover of	326
Inositol Phospholipids A. S. N. Reddy, J. J. McFadden, M. Friedmann,	
and B. W. Poovaiah	334
Observation of a Possible Pause Mutant in the Total Synthesis of T4 Lysozyme	
S. A. Narang, J. Phipps, Fei-Long Yao, J. J. Michniewicz, G. Dubuc,	
and R. L. Somorjai	340
Isolation of cDNA Clones Corresponding to the $M_r = 150,000$ Subunit of Chick Type VI	
Collagen Paolo Bonaldo, Francesco Bucciotti, and Alfonso Colombatti	347
Alzheimer's Disease Fibroblasts Have Normal Repair of N-Methyl-N'-nitro-N-nitroso-	
guanidine-Induced DNA Damage Determined by the Alkaline Elution Techinique	
Timothy J. Kinsella, Patricia P. Dobson, Albert J. Fornace, Jr.,	255
Susanna F. Barrett, Mary B. Ganges, and Jay H. Robbins B. Gardina and Physical Associates of Partition and Physical Associates and Physical Phy	355
Purification and Physical Analysis of Bacillus anthracis Plasmids pX01 and pX02	362
Roger L. Kaspar and Donald L. Robertson Identification of Three Classes of Hydrogenase in the Genus Desulfovibrio	302
Benet C. Prickril, Shao-Hua He, Ching Li, Nanda Menon, Eui-Sung Choi,	
Alan E. Przybyla, Daniel V. DerVartanian, Harry D. Peck, Jr.,	
Guy Fauque, Jean LeGall, Miguel Teixeira, Isabel Moura,	
Jose J. G. Moura, Daulat Patil, and Boi H. Huynh	369
Subunit Interactions in the First Component of Complement C1 Susan Lakatos	378
A New Method for the Separation of the Constant and the Variable Fluorescence of	
Chlorophyll a in Vivo J. C. Morissette and R. Popovic	385
Synthesis and Processing of Killer Toxin from Ustilago maydis Virus P4	
Gopi K. Podila, Robert F. Bozarth, and William H. Flurkey	391
Natural and Synthetic Forms of Insulin-like Growth Factor-1 (IGF-1) and the Potent	
Derivative, Destripeptide IGF-1: Biological Activities and Receptor Binding F. John Ballard, Geoffrey L. Francis, Marina Ross, Christopher J. Bagley,	
Bruce May, and John C. Wallace	398
Comparison of Human Brain and Liver Glutamate Dehydrogenase cDNAs	270
Yoshiro Nakatani, Carl Banner, Matthias von Herrath, Mark E. Schneider,	
Hana Haleem Smith, and Ernst Freese	405
EPR Characterization of Vanadyl(IV) Species in Blood Cells of Ascidians	
Hiromu Sakurai, Junko Hirata, and Hitoshi Michibata	411

Bruno Barenton,

Harvey J. Guyda, Cynthia G. Goodyer, Constantin Polychronakos, and Barry I.	
Posner. With the technical collaboration of Jean Parodo	
and Veronique Garandel	555
A Biological Response Modifier, PSK, Inhibits Reverse Transcriptase in Vitro	
Kunitaka Hirose, Michinori Hakozaki, Junji Kakuchi, Kenichi Matsunaga,	
Chikao Yoshikumi, Masaaki Takahashi, Tadafumi S. Tochikura,	
and Naoki Yamamoto	562
The Effect of Ischemia and Recirculation, Hypoxia and Recovery on Anti-oxidant	
Factors and β-Adrenoceptor Density: Is the Damage in the Erythrocytes a	
Reflection of Brain Damage Caused by Complete Cerebral Ischemia and by	
Hypoxia? Klaas Kramer, Hans-Peter Voss, Joop A. Grimbergen,	
Hendrik Timmerman, and Aalt Bast	568
Controlled Cell Lysis and Protoplast Formation by Enhancement of Inhibitors of Alanine	300
Controlled Cell Lysis and Protoplast Portnation by Enhancement of Inhibitors of Alanine	
Racemase by Glycine Michael P. Heaton, Robert B. Johnston,	
and Thomas L. Thompson	576
Effects of a Platelet Activating Factor Antagonist (BN 52021) on Free Fatty Acids,	
Diacylglycerols, Polyphosphoinositides, and Blood Flow in the Gerbil Brain:	
Inhibition of Ischemia-Reperfusion Induced Cerebral Injury	
Thomas Panetta, Victor L. Marcheselli, Pierre Braquet, Brigitte Spinnewyn,	
and Nicolas G. Bazan	580
Depurination of Yeast 26 S Ribosomal RNA by Recombinant Ricin A Chain	
Janice L. Bradley, Helder M. Silva, and Peter M. McGuire	588
Decrease in Total and Free Magnesium Concentration following Traumatic Brain Injury	
in Rats Robert Vink, Tracy K. McIntosh, Paul Demediuk, and Alan I. Faden	594
Interactions of the Receptor for Insulin-like Growth Factor II with Mannose-6-	<i>.</i>
phosphate and Antibodies to the Mannose-6-phosphate Receptor	
Richard A. Roth, Cynthia Stover, Joji Hari, David O. Morgan,	
	600
Michele C. Smith, Vicki Sara, and Victor A. Fried	600
The Design of a Simple Competitive ELISA Using Human Proinsulin-Alkaline	
Phosphatase Conjugates Prepared by Gene Fusion Christer Lindbladh,	
Mats Persson, Leif Bülow, Stephen Stahl, and Klaus Mosbach	607
Experimental Evidence for a Zero-Order Ultrasensitivity in a Simple Substrate Cycle	
Alain Cimino and Jean-François Hervagault	615
Amino Acid Sequence of the Phosphopyridoxyl Peptide from P-Protein of the Chicken	
Liver Glycine Cleavage System Kazuko Fujiwara, Kazuko Okamura-Ikeda,	
and Yutaro Motokawa	621
Hemin Inhibits Virion-Associated Reverse Transcriptase of Murine Leukemia Virus	
Ken Tsutsui and Gerald C. Mueller	628
Primary Structure of Human Pancreatic Secretory Trypsin Inhibitor (PSTI) Gene	
Akira Horii, Toshiaki Kobayashi, Naohiro Tomita, Tatsuo Yamamoto,	
Shinichi Fukushige, Tomoaki Murotsu, Michio Ogawa, Takesada Mori,	
and Kenichi Matsubara	635
Secretion of a Growth Inhibitory Factor by ZR-75-1 Human Breast Cancer Cells	055
Rosalyn Blumenthal, William McLaughlin, Jerold Jordan, Ellen Cryan,	
	642
and William Bloomer	642
Monosodium Urate and Calcium Pyrophosphate Crystals Differentially Activate the	
Excitation-Response Coupling Sequence of Human Neutrophils	< 40
P. E. Poubelle, R. De Medicis, and P. H. Naccache	649
Role for Protein Kinase C in A23187 Induced Glomerular Arachidonate Release and	
PGE ₂ Production Patricia A. Craven, Mark C. Patterson,	
and Frederick R. DeRubertis	658
Complementary DNA for the Mouse Homolog of the Human Amyloid β Protein	
Precursor Takeshi Yamada, Hiroyuki Sasaki, Hirokazu Furuya,	
Takashi Miyata, Ikuo Goto, and Yoshiyuki Sakaki	665

Specificity of Insulin-like Growth Factor Binding to Type-II IGF Receptors in Rabbit

Mammary Gland and Hypophysectomized Rat Liver

Lamin A Is Not Synthesized as a Larger Precursor Polypeptide	
Susan Lebel and Yves Raymond	417
Electron Paramagnetic Resonance Studies of the Tungsten-Containing Formate	
Dehydrogenase from Clostridium thermoaceticum	
Joseph C. Deaton, Edward I. Solomon, Gerald D. Watt,	
Phyllis J. Wetherbee, and Charles N. Durfor	424
Engineering of the Hydrophobic Segment of the Signal Sequence for Efficient Secretion	
of Human Lysozyme by Saccharomyces cerevisiae Yoshio Yamamoto,	
Yoshio Taniyama, Masakazu Kikuchi, and Morio Ikehara	431
High-Resolution Proton NMR Spectra of Human Arterial Plaque	
Jaroslav Zajicek, Justin D. Pearlman, Michael B. Merickel, Carlos R. Ayers,	
James R. Brookeman, and Michael F. Brown	437
Ethanol Feeding to Rats Reversibly Decreases Hepatic Carnitine Palmitolytransferase	451
Activity and Increases Enzyme Sensitivity to Malonyl-CoA M. Guzmán,	
J. Castro, and A. Maquedano	443
	443
Nuclear Matrix Association Regions of Rat α ₂ -Macroglobulin Gene	449
Takashi Ito and Yoshiyuki Sakaki	449
Evidence That the Heterodisulfide of Coenzyme M and 7-Mercaptoheptanoylthreonine	
Phosphate Is a Product of the Methylreductase Reaction in Methanobacterium	
Thomas A. Bobik, Karl D. Olson, Kenneth M. Noll, and Ralph S. Wolfe	455
Dynamic Properties of Microtubules at Steady State of Polymerization	
Stephen R. Martin, Maria J. Schilstra, and Peter M. Bayley	461
Specific Endogenous Na, K-ATPase Inhibitor Purified from Bovine Adrenal	
Masaaki Tamura, Tim-Tak Lam, and Tadashi Inagami	468
Direct Release of Angiotensins I and II from Isolated Rat Kidney Perfused with	
Angiotensinogen-Free Medium Kenji Mizuno, Koichi Higashimori,	
Teruaki Imada, and Tadashi Inagami	475
Specific Stimulation of Steroid 5α-Reductase Solubilized from Rat Liver Microsomes by	
Endogenous Phosphatidylserine Kosuke Ichihara and Chikage Tanaka	482
Functional α ₂ -Macroglobulin Half-Molecules Induced by Cadmium	
François Pochon, Martine Barray, and Etienne Delain	488
The A and B Forms of the Chicken Progesterone Receptor Arise by Alternate Initiation	
of Translation of a Unique mRNA Orla M. Conneely, Beth Lynn Maxwell,	
David O. Toft, William T. Schrader, and Bert W. O'Malley	493
Interleukin-1 Inhibits Follicle Stimulating Hormone-Induced Differentiation in Rat	
Granulosa Cells in Vitro Paul E. Gottschall, Akira Uehara,	
Susan Talbot Hoffmann, and Akira Arimura	502
Retinoic Acid Increases the Expression of NGF Gene in Mouse L Cells	
D. Wion, R. Houlgatte, N. Barbot, P. Barrand, E. Dicou, and P. Brachet	510
Are Sheep and Buffalo Prolactins Sulfated?	
Rita Kohli, Neeraja Chadha, and K. Muralidhar	515
Extracellular ATP Elevates Intracellular Free Calcium in Rat Parotid Acinar Cells	
M. K. McMillian, S. P. Soltoff, L. C. Cantley, and B. R. Talamo	523
Synthesis and in Vitro Bioactivity of Human Growth Hormone-Releasing Factor Analogs	0.20
Substituted with a Single D-Amino Acid Kazuki Sato, Mari Totta,	
Jingo Kageyama, Teh-Chang Chiang, Hsiao-Yu Hu, Ming-Hui Dong,	
and Nicholas Ling	531
One-Step Processing of the Amphibian Vasotocin Precursor: Structure of a Frog (Rana	001
esculenta) "Big" Neurophysin Gilles Michel, Jacqueline Chauvet,	
Marie-Thérèse Chauvet, and Roger Acher	538
Relationship in Adipose Cells between the Presence of Receptor Sites for High Density	550
Lipoproteins and the Promotion of Reverse Cholesterol Transport	
Ronald Barbaras, Pascal Puchois, Paul Grimaldi, Ahmed Barkia,	
Jean-Charles Fruchart, and Gérard Ailhaud	545
jean-Charles Frucharl, and Gerara Allhaua	J#3

Table	Ωf	Con	tents

Evolution Caterina Mencarelli, Massimo Bugnoli, Mario Contorni, Alessandra Moscatelli, Paolo Ruggiero, and Vitaliano Pallini Modulation of Tumor Necrosis Factor-α Cytotoxicity in L929 Cells by Bacterial Toxins, Hydrocortisone, and Inhibitors of Arachidonic Acid Metabolism	807
Anne Hepburn, Jean-Marie Boeynaems, Walter Fiers, and Jacques E. Dumont	815
Reactivation of Affinity-Purified Estrogen Receptors by Peptides Derived from Histone H2B Kalyan K. Bhattacharyya, Mark R. Olsen, and Gerald C. Mueller The Biosynthesis of Intestinal Sucrase-Isomaltase in Human Embryo Is Most Likely Controlled at the Level of Transcription	823
Gianfranco Sebastio, Walter Hunziker, Brigitte O'Neill, Christiane Malo, Daniel Ménard, Salvatore Auricchio, and Giorgio Semenza	830
Volume 149, Number 3, December 31, 1987	
AUTHOR INDEX, Volume 149, Number 3, December 31, 1987	iii
Xanthine Oxidase Activity in Mouse Pancreas: Effects of Caerulein-Induced Acute Pancreatitis Zoltan J. Devenyi, John L. Orchard, and Robert E. Powers	841
A Method to Isolate DNA Sequences That Are Promoter-Active in Escherichia coli and in Yeast Ju Won Kwak, Jiyoung Kim, Ook Joon Yoo, and Moon Hi Han	846
Type I IGF Receptors of Leydig Cells Are Upregulated by Human Chorionic Gonadotropin T. Lin, J. Blaisdell, and J. F. Haskell	852
Molecular Cloning and in Vivo Expression of a Precursor to Rat Mitochondrial Aspartate Aminotransferase Joseph R. Mattingly, Jr., Francisco J. Rodriguez-Berrocal,	
Jack Gordon, Ana Iriarte, and Marino Martinez-Carrion	859
A Fibroblast-Derived Urokinase Inhibitor Differing from Protease Nexin Mikio Masuzawa, Hideaki Hamazaki, Kiyoshi Nishioka,	
Shigeo Nishiyama, and Terence J. Ryan	866
Observation of Inositol Pentakis- and Hexakis-Phosphates in Mammalian Tissues by ^{3†} P NMR Benjamin S. Szwergold, Robert A. Graham, and Truman R. Brown	874
Lymphocyte Granule-Mediated Cytolysis Requires Serine Protease Activity Dorothy Hudig, N. Janine Gregg, Chih-Min Kam, and James C. Powers	882
Superoxide Dismutase and Catalase Protect Cultured Hepatocytes from the Cytotoxicity	002
of Acetaminophen Marlene E. Kyle, Stefania Miccadei,	
Dai Nakae, and John L. Farber	889
Heparin Inhibits Inositol Trisphosphate-Induced Calcium Release from Permeabilized Rat Liver Cells Timothy D. Hill, Per-Olof Berggren, and Alton L. Boynton	897
Peptides in Rat Brain Immunoreactive for the Amino Terminus of Cholecystokinin 33:	09/
Distribution and Chromatography Song Ping Han, Lloyd R. Allard,	
and Margery C. Beinfeld	902
Primary Sequence Analysis by Fast Atom Bombardment Mass Spectrometry of a Peptide	
with Adipokinetic Activity from the Corpora Cardiaca of the Cricket Gryllus	
bimaculatus Gerd Gäde and Kenneth L. Rinehart	908
The Accumulation of Platelet Activating Factor in the Injured Cornea May Be Interrelated with the Synthesis of Lipoxygenase Products	
Haydee E. P. Bazan, Sridevi T. K. Reddy, Joseph M. Woodland, and Nicolas G. Bazan	915
Phenobarbital Specifically Increases the Hepatocellular Uptake of Sulfobromophthalein	913
Glutathione D. Sorrentino, V. Licko, R. A. Weisiger,	
G. Alpini, and P. D. Berk	921
The Greater Strength of Arginine: Carboxylate over Lysine Carboxylate Ion Pairs:	
Implications for the Design of Novel Enzymes and Drugs	027
Dale B. Wigley, Andrew Lyall, Keith W. Hart, and J. John Holbrook On Antisense Peptides: The Parathyroid Hormone as an Experimental Example and a	927
Critical Theoretical View Ulla B. Rasmussen and Rolf-Dieter Hesch	930

Phosphorylated Epitopes of Neurofilaments Have Been Conserved during Chordate

939

Genes

John L. Knopf, W. Scott Young III, and Kuo-Ping Huang	946
Nuclear Overhauser Effects as Probes of Peptide Structure. A Diagnostic for Left-	,
Handed Helical Conformations C. Ramakrishnan, M. Sukumar,	
and P. Balaram	953
	755
Expression of Chimeric Receptor Composed of Immunoglobulin-Derived V Regions and	
T-Cell Receptor-Derived C Regions Yoshihisa Kuwana,	
Yoshihiro Asakura, Naoko Utsunomiya, Mamoru Nakanishi, Yohji Arata,	
Seiga Itoh, Fumihiko Nagase, and Yoshikazu Kurosawa	960
The Early Competence Genes JE and KC Are Differentially Regulated in Murine	
Peritoneal Macrophages in Response to Lipopolysaccharide	
T. J. Koerner, Thomas A. Hamilton, Martino Introna,	
Charles S. Tannenbaum, Robert C. Bast, Jr., and Dolph O. Adams	969
Pertussis and Cholera Toxin ADP-Ribosylation in Dictyostelium discoideum	
Membranes Leili Khachatrian, Claudette Klein, and Allyn Howlett	975
Different Localization of Receptors for ω-Conotoxin and Nitrendipine in Rat Brain	
Motohiko Takemura, Hiroyuki Fukui, and Hiroshi Wada	982
Production of a Chemotactic Factor for Polymorphonuclear Leukocytes by Epithelioid	702
Cells from Rat Renal Glomeruli in Culture	989
Kazuyoshi Watanabe and Hideo Nakagawa	909
High Affinity Binding of Human Interleukin 4 to Cell Lines	
Hélène Cabrillat, Jean-Pierre Galizzi, Odile Djossou, Naoko Arai,	
Takashi Yokota, Kenichi Arai, and Jacques Banchereau	995
Sulfatide Bilayers as a Surface for Contact Activation in Human Plasma	
G. Tans, A. J. Verkleij, J. Yu, and J. H. Griffin	1002
Insulin Stimulated Protein Phosphorylation in Human Plasma Liver Membranes:	
Detection of Endogenous or Plasma Membrane Associated Substrates for Insulin	
Receptor Kinase José F. Caro, Jules A. Shafer, Simeon I. Taylor,	
S. M. Raju, Nichola Perrotti, and Madhur K. Sinha	1008
Relationship between Plasma PGE ₂ Level and Changes in Hemoglobin Proportions	
during Bleeding-Induced Anemia in Adult Rats	
M. C. Datta, H. J. Spears, and H. A. Dowla	1017
	1017
The Major Erythrotropin of Bovine Cohn Fraction V Has the N-Terminal Sequence of	
Insulin-like Growth Factor II with Isoleucine at Position 35	1007
L. F. Congote and F. Esch	1026
Cytotoxicity of a Novel Lipid-like Bacterial Product	
T. Keler, E. Kovats, V. Nguyen, J. Samu, F. Sanavi, B. Somlyo, and A. Nowotny	1033
A Novel K Agonist Inhibits [3H] Nimodipine Binding to a Ca2+ Channel Receptor Protein	
in Rat Brain V. C. Gandhi and D. H. Ross	1042
Evidence for Two Distinct Voltage-Gated Calcium Channel Currents in Bovine Adrenal	
Glomerulosa Cells Hiroshi Matsunaga, Naohide Yamashita,	
Yoshio Maruyama, Itaru Kojima, and Kiyoshi Kurokawa	1049
Identification of α Atrial Natriuretic Peptides (4-28) and (5-28) in Porcine Brain	
Shuzo Ueda, Tetsuji Sudoh, Kenji Fukuda, Kenji Kangawa, Naoto Minamino,	
and Hisayuki Matsuo	1055
Lipoxin Synthesis by Arachidonate 12-Lipoxygenase Purified from Porcine Leukocytes	1055
Lipoxin Synthesis by Arachidonate 12-Lipoxygenase ruined from 1 of the Leukocytes	
Natsuo Ueda, Chieko Yokoyama, Shozo Yamamoto, Brian J. Fitzsimmons,	1062
Joshua Rokach, John A. Oates, and Alan R. Brash	1003
Interaction of Heme with a Synthetic Peptide Mimicking the Putative Heme-Binding Site	
of Histidine-Rich Glycoprotein Masanao Katagiri, Ken Tsutsui,	1070
Toshio Yamano, Yasutsugu Shimonishi, and Fumihide Ishibashi	10.40
•	

Molecular Cloning, cDNA Structure, and Deduced Amino Acid Sequence for a Type I Regulatory Subunit of cAMP-Dependent Protein Kinase from Human Testis

Immunochemical Identification of Protein Kinase C Isozymes as Products of Discrete

Mårten Sandberg, Kjetil Taskén, Ole Øyen, Vidar Hansson, and Tore Jahnsen

Freesia L. Huang, Yasuyoshi Yoshida, Hiroki Nakabayashi,

Interaction of 5-Fluoro-4-thio-2'-deoxyuridine 5'-Phosphate with Mammalian Tumor Thymidylate Synthase: Role of the Pyrimidine N(3)-H Dissociation	
Jolanta M. Dzik, Tadeusz Kulikowski, Zbigniew Zielinski, Joanna Ciesla,	
Wojciech Rode, and David Shugar	1200
Inositol 1,2-Cyclic 4,5-Trisphosphate Is Formed in the Rat Parotid Gland on	
Muscarinic Stimulation John F. Dixon and Lowell E. Hokin	1208
Carboxyl Terminal Analysis of Human B-48 Protein Confirms the Novel Mechanism	
Proposed for Chain Termination David A. Hardman, Andrew A. Protter,	
James W. Schilling, and John P. Kane	1214
ERRATA	
Volume 148, Number 2, October 29, 1987: Charles L. Hoppel, David Greenblatt,	
Hung-chi Kwok, Pramod K. Arora, Malvinder P. Singh, and Lawrence M.	
Sayre, "Inhibition of Mitochondrial Respiration by Analogs of	
4-Phenylpyridine and 1-Methyl-4-phenylpyridinium Cation (MPP ⁺), the	
Neurotoxic Metabolite of MPTP," pp. 684-693	1220
Volume 148, Number 2, October 29, 1987: Pietro Cenini, Maria Giulia Battelli,	
Andrea Bolognesi, Fiorenzo Stirpe, and Clarence L. Villemez, "Effect of	
Ribosome-Inactivating Proteins on Ribosomes from Tetrahymena pyriformis	
and Acanthamoeba castellanii," pp. 521-527	1220
Volume 148, Number 3, November 13, 1987: B. J. Potter, D. Stump, W.	1220
Schwieterman, D. Sorrentino, L. N. Jacobs, CL. Kiang, J. H. Rand, and P. D.	
Berk, "Isolation and Partial Characterization of Plasma Membrane Fatty Acid	
Binding Proteins form Myocardium and Adipose Tissue and Their Relationship	
to Analogous Proteins in Liver and Gut," pp. 1370–1376	1222
Author Index for Volume 149	1222
Author findex for volume 149	1223

Localization of Ribosomal Proteins on the Surface of Mammalian 60 S Ribosomal Subunits by Means of Immobilized Enzymes: Correlation with Chemical Crosslinking Data Marie-Jeanne Marion and Christian Marion Localization of Ribosomal Proteins on the Surface of Mammalian 60 S Ribosomal Subunits by Means of Immobilized Enzymes: Correlation with Chemical Christian Marion Marion Christian in Ret Adiabatics in	1077
Inositol Glycan Mimics the Action of Insulin on Glucose Utilization in Rat Adipocytes Alan R. Saltiel and Lynn R. Sorbara-Cazan	1004
c-Fos Expression in Human Skin Fibroblasts by Reperfusion after Oxygen Deficiency: A Recovery Change of Human Skin Fibroblasts after Oxygen Deficiency Stress	
Yasuhiro Deguchi, Shigeru Negoro, and Susumu Kishimoto	1093
Glucocorticoid Receptor Binding to Defined Regions of α _{2u} -Globulin Genes Patrick Van Dijck, Frédéric P. Lemaigre, Joris Winderickx,	
Guy G. Rousseau, and Guido Verhoeven	1099
Real-Time Visualization of Oxyradical Burst from Single Neutrophil by Using Ultrasensitive Video Intensifier Microscopy	
Makoto Suematsu, Chikara Oshio, Soichiro Miura, and Masaharu Tsuchiya	1106
Hydroperoxide Lyase in Rabbit Leukocytes: Conversion of 15-Hydroperoxyeicosatetraenoic Acid to 15-Keto-pentadeca-5,8,11,13-tetraenoic Acid	
Bing K. Lam, Yu-Ling Lin, Hsiao-Yung Ho, and Patrick YK. Wong	1111
The Transcriptional Efficiency of Clustered tRNA Genes Is Affected by Their Position	
within the Cluster Tommaso Russo, Adriana Oliva, Angela Duilio, Rosario Ammendola, Francesco Costanzo, Mariastella Zannini,	
and Filiberto Cimino	1118
Isolation of a Myofibroblast Growth Factor from Human Breast Carcinoma Cell Lines	1110
Sanford H. Barsky and Rayudu Gopalakrishna	1125
Lower Number of Atrial Natriuretic Peptide Receptors in Thymocytes and Spleen Cells	
of Spontaneously Hypertensive Rats	
Masaki Kurihara, Eero Castrén, J. Silvio Gutkind, and Juan M. Saavedra	1132
Formation of 8-Hydroxyguanine Residues in DNA Treated with 4-Hydroxyguminoquino-	
line 1-Oxide and Its Related Compounds in the Presence of Seryl-AMP	
Kohfuku Kohda, Mariko Tada, Atsushi Hakura, Hiroshi Kasai, and Yutaka Kawazoe	1141
Production of Human Thyroid-Stimulating Hormone in Chinese Hamster Ovary Cells	1171
Sachihiko Watanabe, Yoshihide Hayashizaki, Yuichi Endo, Machiko Hirono,	
Noriko Takimoto, Mikio Tamaki, Hiroshi Teraoka, Kiyoshi Miyai,	
and Kenichi Matsubara	1149
Purification and Properties of a Non-histone Chromatin Protein with a Molecular Weight of 38,000 Da Specific for Transformed Rat Cells	
Tatsuo Nakayama, Maki Irikura, Yoshiko Setoguchi, Hisayuki Matsuo,	
Hirokazu Inoue, Masuo Yutsudo, and Akira Hakura	1156
A Zebrafish Homeobox-Containing Gene with Embryonic Transcription Hans G. Eiken, Pål R. Njølstad, Anders Molven, and Anders Fjose	1165
Properties of Recombinant Hepatitis B Vaccine	1105
Takao Ohmura, Akimasa Ohmizu, Akinori Sumi, Wataru Ohtani,	
Yahiro Uemura, Hirofumi Arimura, Masayuki Nishida, Yasuhiro Kohama,	
Masaru Okabe, Tsutomu Mimura, and Charles M. Heldebrant	1172
Regulation of Angiotensin Converting Enzyme Activity in Cultured Human Vascular	
Endothelial Cells Naoharu Iwai, Masato Matsunaga, Toru Kita,	
Masahiko Tei, and Chuichi Kawai	1179
Different Distribution of Two Types of Angiotensin II-Generating Enzymes in the Aortic Wall Hideki Okunishi, Mizuo Miyazaki, Tomio Okamura,	
wan Hideki Okunishi, Mizuo Miyazaki, 10mio Okamura, and Noboru Toda	1186
Response of Human Platelets Exposed to Arachidonate upon Stimulation with Other	
Agonists: Possible Role of Ca _i ²⁺ Movement	
Z. M. Chen, C. Cerletti, G. de Gaetano, and V. Bertelé	1193

CUMULATIVE TABLE OF CONTENTS FOR VOLUMES 142-149

Volume 142, Number 1, January 15, 1987

AUTHOR INDEX, Volume 142, Number 1, January 15, 1987	ii
Regulation of Lipoprotein Lipase Secretion by Mouse Peritoneal Macrophages	
Dennis I. Goldberg and John C. Khoo	1
Diacylglycerol Causes Ca Release from the Platelet Dense Tubular System: Comparisons	
with Ca Release Caused by Inositol 1, 4, 5-Triphosphate	
Lawrence F Brass and Michael Laposata	7
Angiotensin-Induced Formation and Metabolism of Inositol Polyphosphates in Bovine	
Adrenal Glomerulosa Cells Gaetan Guillemette, Albert J. Baukal,	
Tamas Balla, and Kevin J. Catt	15
Immunohistochemical Detection of Inhibin in the Gonad	
Pedro Cuevas, Shao-Yao Ying, Nicholas Ling, Naoto Ueno, Frederick Esch, and	
Roger Guillemin	23
A Fluorescent Derivative of the Oligomycin-Sensitivity Conferring Protein (Acrylodan-	
OSCP): Evidence for Polarity Changes in the Environment of Cys ₁₁₈ of OSCP upon	
Binding to Mitochondrial F ₁ Alain Dupuis, Jerzy Duszynski,	
and Pierre V. Vignais	31
The Type-1 Protein Phosphatase Activating Factor F _A Is a Membrane-Associated Protein	J.
Kinase in Brain, Liver, Heart, and Muscles SD. Yang, JS. Liu,	
TC. Tzen, and JK. Wang	38
Calcium Dependent Inositol Trisphosphate-Induced Calcium Release in the Guinea Pig	20
Taenia caeci M. Iino	47
Comparison of the Roles of Calmodulin and Protein Kinase C in Activation of the Human	74 /
Neutrophil Respiratory Burst Clifford D. Wright and Michael D. Hoffman	53
Cholesterol Efflux from Cultured Adipose Cells Is Mediated by LpA _I Particles but Not by	33
LpA ₁ : A ₁₁ Particles Ronald Barbaras, Pascal Puchois,	
Jean-Charles Fruchart, and Gérard Ailhaud	62
Angiotensin II-Induced Increase in Inositol 1,4,5-Trisphosphate in Cultured Rat Mesangial	63
Cells: Evidence by Refined High Performance Liquid Chromatography	
SungHyo Shin, Yoshihiro Fujiwara, Akira Wada, Toshiro Takama,	70
Yoshimasa Orita, Takenobu Kamada, and Kunio Tagawa	70
In Vitro Synthesis of APO-A-IV and APO-C by Liver and Intestinal mRNAs from Lean and	~0
Obese Zucker Rats M. Pessah, C. Salvat, S. R. Wang, and R. Infante	78
Assessment of Phospholipid Deacylation-Reacylation Cycles by a Stable Isotope Technique	
Toyoyasu Kuwae, Patricia C. Schmid, and Harald H. O. Schmid	86
Cloning and Regulation of Rat Apolipoprotein B mRNA	
Akiyo Matsumoto, Hiroyuki Aburatani, Yoshikazu Shibasaki, Tatsuhiko Kodama,	00
Fumimaro Takaku, and Hiroshige Itakura	92
Endocytotic Internalization of α -2-Macroglobulin: α -Galactosidase Conjugate by Cultured	
Fibroblasts Derived from Fabry Hemizygote	100
Toshiya Osada, Yoichiro Kuroda, and Atsushi Ikai	100
Arginine Modification with Butanedione Inhibits the Potassium ATPase of Streptococcus	40-
faecalis Peter Fürst and Marc Solioz	107
The Effect of Gla-Containing Proteins on the Precipitation of Insoluble Salts	
Peet G. F. van de Loo, Berry A. M. Soute, L. Johan M. van Haarlem,	
and Cees Vermeer	113
Dibutyryl-Cyclic AMP Inhibits Cholesterol Esterification in J 774 Monocytelike Cells	
N. E. Houtia, J. C. Mazière, C. Mazière, M. Auclair, L. Mora, J. Gardette, and	
J. Polonovski	120

Both 2',3'-Dideoxythymidine and Its 2',3'-Unsaturated Derivative (2',3'-Dideoxythymidinene) Are Potent and Selective Inhibitors of Human Immunodeficiency Virus Replication in Vitro Masanori Baba, Rudi Pauwels, Piet Herdewijn, Erik De Clercq, Jan Desmyter, and Michel Vandeputte	128
Stimulation by a Tumor-Promoting Phorbol Ester of Acetyl-CoA Carboxylase Activity in Isolated Rat Hepatocytes W. J. Vaartjes, C. G. M. de Haas, M. J. H. Geelen, and C. Bijleveld	135
The Gene for Human Chromogranin A (CgA) Is Located on Chromosome 14	
S. S. Murray, L.L. Deaven, D. W. Burton, D. T. O'Connor, P. L. Mellon, and L. J. Deftos A Highly Sensitive Chromogenic Microtiter Plate Assay for Plasminogen Activators Which Quantitatively Discriminates between the Urokinase and Tissue-type Activators	141
Beth Y. Karlan, Ann S. Clark, and Bruce A. Littlefield Phosphorylation by Protein Kinase C of a Synthetic Heptapeptide Bearing a Lysine Residue on the C Terminal Side of Serine Hiroki Kondo, Yoshimi Baba,	147
Katsunori Takaki, Kiyoshi Kondo, and Hiroyuki Kagamiyama	155
Identification of Two Types of Protein Immunochemically Related to Urinary Urokinase Occurring in Human Plasma D. J. Binnema, D. Dooijewaard,	
and J. J. L. van Iersel Identification of Renin and Renin Messenger RNA Sequence in Rat Ovary and Uterus Seong-Jin Kim, Masashi Shinjo, Akiyoshi Fukamizu, Hitoshi Miyazaki,	162
Satoshi Usuki, and Kazuo Murakami An ATP/2e ⁻ Stoichiometry of 1½ Is Thermodynamically Possible for Site 3 of Oxidative	169
Phosphorylation John J. Lemasters and Kenneth E. Fleishman	176
Evidence for the Existence of an Expressed Minor Variant tRNA Phe in Yeast	183
G. Keith and G. Dirheimer Changes in Phosphorylation of Nonhistone Proteins during Differentiation of a Lower	188
Eukaryote Physarum polycephalum Jan Fronk and Kazimierz Toczko Mass Spectral Analysis of Complex Lipids Desorbed Directly from Lyophilized Membranes and Cells D. N. Heller, C. Fenselau, R. J. Cotter, P. Demirev,	100
J. K. Olthoff, J. Honovich, M. Uy, T. Tanaka, and Y. Kishimoto	194
Time Dependence of the Methylation of Myelin Basic Protein from Bovine Brain: Evidence	
for Protein-Methylarginine Demethylation Paul R. Young and Cynthia M. Waickus	200
Effects of Metalloendoprotease Inhibitors on Insulin Binding, Internalization, and	
Processing in Adipocytes Albert Jochen and Paulos Berhanu A Reassessment of the Product Specificity of the NADPH:02 Oxidoreductase of Human	205
Neutrophils Terrence R. Green and Katherine L. Pratt L-Proline Uptake in Human Fibroblasts: Evidence for a High-Affinity System in Addition to System A Madeleine Feneant-Thibault, Nicole Moatti, Jean Maccario,	213
Audrey Corriat, and Alain Lemonnier	221
The Cardiac Gap Junction Protein (M_r 47,000) Has a Tissue-Specific Cytoplasmic Domain of M_r 17,000 at Its Carboxy-Terminus	
C. K. Manjunath, B. J. Nicholson, David Teplow, Lee Hood, E. Page, and JP. Revel Recombinant Tumor Necrosis Factor and Interleukin-1 Both Stimulate Human Synovial Cell Arachidonic Acid Release and Phospholipid Metabolism	228
Richard W. Godfrey, William J. Johnson, and Sylvia T. Hoffstein Regulation of Membrane Associated Protein Kinase C Activity by Guanine Nucleotide in Rabbit Peritoneal Neutrophils Chi-Kuang Huang,	235
James F. Devanney, and Yasunori Kanaho Unmasking of Arachidonate-Induced Insulin Release by Removal of Extracellular Calcium: Arachidonic Acid Mobilizes Cellular Calcium in Rat Islets of Langerhans	242
Stewart A. Metz, Boris Draznin, Karl E. Sussman, and J. Wayne Leitner	251
Capsaicin, a Pungent Principle of Hot Red Pepper, Evokes Catecholamine Secretion from the Adrenal Medulla of Anesthetized Rats Tatsuo Watanabe, Teruo Kawada, Mivuki Yamamoto, and Kazuo Iwai	259
ALLY WITH AUTHORITY WITH A LANGUE A THAT	

Involvement of Reactive Oxygen Species in the Oxidation of Tyrosine and Dopa to Melanin and in Skin Tanning Prakash C. Joshi, Claudio Carraro, and	265
Madhu A. Pathak Insulinlike Growth Factor-II Increases Cytoplasmic Free Calcium in Competent Balb/c 3T3	265
Cells Treated with Epidermal Growth Factor Ikuo Nishimoto, Itaru Kojima, Yoshihiro Ohkuni, and Etsuro Ogata	275
ERRATA	
Volume 139, Number 1, August 29, 1986: Elena Tragni, Alberto Corsini, Remo Fumagalli, Liliana Flaminio, and Corrado L. Galli, "Lack of Correlation between TPA-Induced Prostaglandin Biosynthesis and Ornithine Decarboxylase Activity in	
Balb/c Mouse 3T3 Fibroblasts," pp. 186-195 Volume 140, Number 1, October 15, 1986: Masahiro Saitoh, Michiko Naka, and Hiroyoshi Hidaka, "The Modulatory Role of Myosin Light Chain Phosphoryla-	287
tion in Human Platelet Activation," pp. 280–287	289
Volume 142, Number 2, January 30, 1987	
AUTHOR INDEX, Volume 142, Number 2, January 30, 1987	ii
Magnetic Lipase Active in Organic Solvents Katsunobu Takahashi,	•••
Yutaka Tamaura, Yoh Kodera, Takeshi Mihama, Yuji Saito, and Yuji Inada NAD-Dependent Hydrogenase from Alcaligenes eutrophus Z1: Does It Have a Regulatory Center? Iliya B. Utkin, Rem R. Petrov, Alexey M. Egorov, Vladimir O. Popov,	291
and Iliya V. Berezin	297
p-Chlorophenylalanine Does Not Inhibit Production of Recombinant Human Phenylalanine Hydroxylase in NIH 3T3 Cells or E. coli Fred D. Ledley and Savio L. C. Woo Loukettienes and Related Figure 2014 Ass. Reschool by Fron Louke 2014.	302
Leukotrienes and Related Eicosanoids Are Produced by Frog Leukocytes Floyd A. Green, Ceil A. Herman, R. Peter Herman, Hans-Erik Claesson,	
and Mats Hamberg	309
Mitochondrial Function after Acute Alteration of the Endogenous Insulin-to-Glucagon Ratio June R. Aprille, Gitta Rohweder-Dunn, William A. Brennan, Jr.,	
Richard T. Kelley, and Michael T. Nosek	315
Specificity of Activated Glucocorticoid Receptor Expression in Heart and Skeletal Muscle Types Susan M. Czerwinski-Helms and Robert C. Hickson	322
Isolation and Characterization of a Novel Nonheme Chloroperoxidase	
Te-Ning Ernie Liu, Thabiso M'Timkulu, John Geigert, Beverly Wolf,	220
Saul L. Neidleman, Deborah Silva, and Jennie C. Hunter-Cevera A Rapid and Sensitive Method for the Estimation of Individual tRNA Pools	329
Chandrashekhar V. Patel and K. P. Gopinathan	334
Evidence That O ⁶ -Alkylguanine-DNA Alkyltransferase Becomes Covalently Bound to DNA Containing 1,3-Bis(2-chloroethyl)-1-nitrosourea-Induced Precursors of	,55.
Interstrand Crosslinks Thomas P. Brent, Debra G. Smith,	
and Joanna S. Remack	341
NIH 3T3 Cells Transfected with Human Tumor DNA Lose the Transformed Phenotype When Treated with Swainsonine Rosaria DeSantis, Ursula V. Santer,	
when freated with Swainsonine Rosaria Desantis, Orsula V. Santer, and Mary Catherine Glick	348
Phosphorylation of the α 1,2-Linked Mannosylsaccharide by N-Acetylglucosamine-1-	540
phosphotransferase from Fibroblasts Occurs at the Terminal Mannose	
Ragupathy Madiyalakan, Rakesh K. Jain, and Khushi L. Matta	354
The Study of Diabetic Cataractogenesis in the Intact Rabbit Lens by Deuterium NMR	
Spectroscopy James B. Aguayo, Ian J. McLennan, Eric Aguiar, and Hong-Ming Cheng	359
Immunochemical Characterization of Protein Kinase C in Rat Liver Nuclei and Subnuclear	223
Fractions Silvano Capitani, Peggy R. Girard, Gonzalo J. Mazzei, J. F. Kuo,	
Ronald Berezney, and Francesco A. Manzoli	367

Biotransformation of 1-Nitropyrene and 2-Nitrofluorene to Novel Metabolites, the Corresponding Formylamino Compounds, in Animal Bodies	
Kiyoshi Tatsumi and Hirotaka Amano	376
An Inhibitor RNA of Translation from Barley Embryo	
Shobha Gunnery and Asis Datta	383
Two Classes of Phosphotyrosine-Containing Proteins Detected by Labeling with ³² P and	
125 I in HeLa Cells Masahiro Ohtsuka, Ryoichi Ogawa, and Yasushi Watanabe	389
Synthesis/Secretion of Nerve Growth Factor Is Associated with Cell Growth in Cultured	
Mouse Astroglial Cells Shoei Furukawa, Yoshiko Furukawa, Eijiro Satoyoshi,	
and Kyozo Hayashi	395
Inhibition of α_1 -Adrenergic Responsiveness in Intact Cells by a New, Irreversible Receptor	
Antagonist Joseph Helman, John W. Kusiak, Josef Pitha, and Bruce J. Baum	403
Spin-Trapping of Sulfite Radical Anion, SO 3 by a Water-Soluble, Nitrosoaromatic	
Spin-Trap Toshihiko Ozawa and Akira Hanaki	410
Antithrombin III mRNA in Adult Rat Liver and Kidney and in Rat Liver during	
Development Stanley E. D'Souza and Julian F. B. Mercer	417
Polyamines Antagonize Both the Antileukemic Activity and the Reverse Transcriptase	
Stimulatory Activity of 4,4'-Diacetyldiphenylureabis(guanylhydrazone) (DDUG)	
Stuart L. Marcus, Henry C. Nathan, Seymour H. Hutner, and Cyrus J. Bacchi	422
Fibroblast Growth Factors Are Present in the Extracellular Matrix Produced by Endothelial	
Cells in Vitro: Implications for a Role of Heparinase-like Enzymes in the Neovascular	
Response Andrew Baird and Nicholas Ling	428
K-252 Compounds, Novel and Potent Inhibitors of Protein Kinase C, and Cyclic Nucleotide-	
Dependent Protein Kinases Hiroshi Kase, Kazuyuki Iwahashi,	
Satoshi Nakanishi, Yuzuru Matsuda, Koji Yamada, Mitsuru Takahashi,	
Chikara Murakata, Akira Sato, and Masami Kaneko	436
Enzymatic Transformation of PGH ₂ to PGF _{2\alpha} Catalyzed by Glutathione S-Transferases	
John R. Burgess, Hong Yang, Mei Chang, M. K. Rao, Chen Pei-D. Tu,	
and C. Channa Reddy	441
Fibroblast Growth Factor Enhances the Interleukin-1-Mediated Chondrocytic Protease	
Release Kalindi Phadke	448
Induction of Neutrophilic Granulocytosis in Mice by Administration of Purified Human	
Native Granulocyte Colony-Stimulating Factor (G-CSF) M. Tamura,	
K. Hattori, H. Nomura, M. Oheda, N. Kubota, I. Imazeki, M. Ono,	
Y. Ueyama, S. Nagata, N. Shirafuji, and S. Asano	454
Molecular Forms of Atrial Natriuretic Polypeptides Circulating in Human Plasma	
Atsuro Miyata, Tsukasa Toshimori, Takashi Hashiguchi, Kenji Kangawa,	
and Hisayuki Matsuo	461
Suppression of Nuclear ADP-Ribosyltransferase Activity in Ehrlich Ascites Tumor Cells by	
5-Azacytidine and Its Analogs Jiro Hoshino, Jürgen Frahm, and Hans Kröger	468
Independent Bindings of Mn ²⁺ and Mg ²⁺ to the Active Site of B. cereus Glutamine	
Synthetase Yoshio Nakano and Kinuko Kimura	475
Synthesis and Presence of Atrial Natriuretic Factor in Rat Ventricle	
Ryoichi Takayanagi, Teruaki Imada, and Tadashi Inagami	483
Transient Expression of Sialylated Glycans during Glycoprotein Processing by Embryonal	
Carcinomas Raymond J. Ivatt	489
The Effects of Ethanol on Cellular Calcium Content in Primary Myocardial Cell Cultures	
from Offspring of Sedentary and Swim-Trained Pregnant Rats	
Allison A. Welder Butler, Mary Ann Smith, Roger P. Farrar, and Daniel Acosta	496
Multiple Mode of Binding of Phencyclidines: High Affinity Association between	
Phencyclidine Receptors in Rat Brain and a Monovalent Ion-Sensitive Polypeptide	
Rachel Haring, Yoel Kloog, Na-ava Harshak-Felixbrodt,	E0.
and Mordechai Sokolovsky	501

Antieukemic Agent Alkyriysopnospnoripid Regulates Priospilor yiation of District Proteins	
in HL60 and K562 Cells and Differentiation of HL60 Cells Promoted by Phorbol Ester	((1
Zoltan Kiss, Eva Deli, William R. Vogler, and J. F. Kuo	661
Enzymic Conversion of Leukotriene B ₄ to 6-trans-Leukotriene B ₄ by Rat Kidney	
Homogenates Olof Breuer and Sven Hammarström	667
Modulation of Ryanodine-Induced Ca ²⁺ Release in Amphibian Skeletal Muscle	
Kwang Seo Hwang, Kooichi Saida, and Cornelis van Breemen	674
2,3-Bisphosphoglycerate Protects Mitochondrial and Cytosolic Proteins from Proteolytic	
Inactivation Enrique Roche, Erwin Knecht, and Santiago Grisolia	680
Epidermal Growth Factor (EGF) Stimulates Inositol Trisphosphate Formation in Cells	
Which Overexpress the EGF Receptor Matthew I. Wahl, J. David Sweatt,	
and Graham Carpenter	688
Loss of Brown Adipose Tissue Uncoupling Protein mRNA on Deacclimation of Cold-	
Exposed Rats Susanna Reichling, Robert G. Ridley, Hasmukh V. Patel,	
Calvin B. Harley, and Karl B. Freeman	696
Amino-Terminal Sequence of a Large Form of Basic Fibroblast Growth Factor Isolated from	
Human Benign Prostatic Hyperplastic Tissue	
Michael T. Story, Frederick Esch, Shunichi Shimasaki, Joachim Sasse,	
Stephen C. Jacobs, and Russell K. Lawson	702
Analysis of DNA Extracted from Formalin-Fixed, Paraffin-Embedded Tissues by Enzymic	.02
Amplification and Hybridization with Sequence-Specific Oligonucleotides	
Chaka C. Impraim, Randall K. Saiki, Henry A. Erlich, and Raymond L. Teplitz	710
	710
Immunoblotting Detection of Lectins in Gluten and White Rice Flour Jan Kolberg, Elisabeth Wedege, and Ludvig Sollid	717
	/1/
Estrogenic Effect of Phenol Red in MCF-7 Cells Is Achieved through Activation of Estrogen	
Receptor by Interacting with a Site Distinct from the Steroid-Binding Site	704
K. G. Rajendran, T. Lopez, and I. Parikh	724
Photoreductive Path of Carbon Fixation in Green Plant Photosynthesis: Reaction Pathway	
of Six-Carbon Ribulose 1,5-Bisphosphate Carboxylation Adduct Intermediate	
Francis K. Fong and Karen A. Butcher	732
Tumor Promoter Chloroform Is a Potent Protein Kinase C Activator	
Monireh Roghani, Corinne Da Silva, and Monique Castagna	738
Ca ²⁺ Uptake Stimulated by the Synergistic Action of Glucagon and Ca ²⁺ -Mobilizing Agents	
in the Perfused Rat Liver Occurs through the Activation of a Unidirectional Ca ²⁺ Influx	
Pathway Joseph G. Altin and Fyfe L. Bygrave	745
Inhibition of Human Lymphocyte Proliferation and Interleukin-2 Production by Platelet-	
Activating Factor [PAF-Acether]: Reversal by a Specific Antagonist, BN 52021	
Marek Rola-Pleszczynski, Bernadette Pignol,	
Claudine Pouliot, and Pierre Braquet	754
Major Intrinsic Polypeptide (MIP26K) of the Lens Membrane: Covalent Change in an	
Internal Sequence during Human Senile Cataractogenesis	
L. Takemoto, J. Smith, and T. Kodama	761
A Marked Increase of Fucosylation of Glycoproteins in IMR-90 Human Diploid Fibroblasts	701
	767
	707
Effects of Growth Factors on an Intestinal Epithelial Cell Line: Transforming Growth Factor β Inhibits Proliferation and Stimulates Differentiation	
Misuzu Kurokowa, Kathy Lynch, and Daniel K. Podolsky	775
MISUZU KUTOKOWA, KAINY LYNCH, and Daniel K. Fodolsky	113
Role of Carbohydrates in the Viscosity and Permeability of Gastric Mucin to Hydrogen Ion	792
Bronislaw L. Slomiany, Jerzy Sarosiek, and Amalia Slomiany	783
Tumor Necrosis Factor Stimulates Gelatinase and Collagenase Production by Granulation	701
Tissue in Culture Hideo Nakagawa, Hisashi Kitagawa, and Yukihiko Aikawa	791
Prevalence of Polymorphic 21-Hydroxylase Gene (CA21HB) Mutations in Salt-Losing	
Congenital Adrenal Hyperplasia Nicholas Jospe, Patricia A. Donohoue,	TO C
Cornelis Van Dop, Robert H. McLean, Wilma B. Bias, and Claude J. Migeon	798

Establishment of Hybridoma Secreting	ng Human Monoclonal Antibody against Hepatitis B	
Virus Surface Antigen	Yuzo Ichimori, Kaori Harada, Shinya Hitotsumachi,	
	and Kyozo Tsukamoto	805
	with Human and Rabbit Tropomyosin. The Complete	
	man Cardiac α -Tropomyosin, a Highly Conserved	
Contractile Protein	Sheenah M. Mische, Belur N. Manjula,	
		813
Cardiac Glycosides Stimulate Phosph	olipase C Activity in Rat Pinealocytes	
	Anthony K. Ho, Valentin Ceña, and David C. Klein	819
	electively Crosslinks High Mobility Group Proteins 1	
	iclease Accessible Regions of Chromatin	
		826
	Proliferation of Human Lymphocytes from Young and	
Old Subjects Man	rina Marini, Giovanna Zunica, Gian Paolo Bagnara,	
Delegation and Disease O. 11 A		836
	ctivity in Maternal, Embryonal, and Fetal Tissues of	
Rat after Chronic Ethanol Consu	· ·	~ · •
And Deleted Change in Division CD		843
Age-Related Changes in Fluidity of R	at Renal Brush Border Membrane Vesicles	
Effect of Twentin Colone dulin Engage		849
tetraurelia	nts on Guanylate Cyclase Activity from Paramecium	
ieiraureita	Susanne Klumpp, Danilo Guerini, Joachim Krebs,	057
Regulation of Erea Cytosolic Co ²⁺ in t	and Joachim E. Schultz the Isolated Guinea Pig Gastric Chief Cells	857
	oitsu Sakamoto, Takashi Matozaki, Munehiko Nagao,	
Chi		865
Aflatorin R4-Hydrorylase Is Associ	ciated with Cytochrome P_3 -450 in C57BL/6 Mouse	005
	P. L. Koser, M. B. Faletto, S. K. Bansal, L. Caballes,	
Divoi		872
lon gul 4 Dogulatom, Evention Affant	,	0.2
c1857 Pam Oam to the Chromoso	s the Efficiency of Transposition of Tn5 from λ b221 Chihiro Sasakawa, Yuko Uno.	
C165/ Fam Oam to the Chromoso		879
Isoanzuma Spacific Phoenhorulation	of Cytochromes P-450 and Other Drug-Metabolizing	0/7
Enzymes	W. Pyerin, H. Taniguchi, F. Horn, F. Oesch,	
Liizyines		885
The Catalytic Machanism of Escharic	hia coli Aspartate Carbamoyltransferase: A Molecular	002
		893
Heterogeneity of β -Adrenoreceptors in		093
Tieterogeneity of p-Autonoreceptors		898
Molecular Cloning of the S-Antigen c		070
		904
	Receptor: Evidence of Receptor Regulation	,,,
,,	Andrew K. S. Ho, Qi-Lang Ling, Rose Duffield,	
		911
Novel and Potent Biological Antio	exidants on Membrane Phospholipid Peroxidation:	
2-Hydroxyestrone and 2-Hydrox		
,,		919
Occurrence, Identification, and Poss	sible Significance of Ornithine Lipid in Thiobacillus	
ferrooxidans		925
The Expression of Oncogenes in Hum		
		932
In Vitro Inhibition of the Metabolism	and Mutagenicity of Benzo[a]pyrene and Benzo[a]	
	thazarin and Other Naphthol Derivatives	
- · ·	Pearl C. Espino and Paul D. Sullivan	939

Dopamine Binding to the α-Receptor in Pregnant Rabbit Myometrium	
Mark Phillippe, Vanessa Barss, Katherine V. Jackson,	0.47
Lawrence Valles, and George Giannopoulos Molecular Cloning of cDNA for Rat Liver Lipoate Acetyltransferase: A Component of	947
Pyruvate Dehydrogenase Complex Sadayuki Matuda, Seiji Matuo,	
Kyoko Nakano, and Takeyori Saheki	953
Formation of Phosphatidylethanol in Rat Brain by Phospholipase D	
L. Gustavsson and C. Alling	958
Characterization of the Guanosine-3'-diphosphate-5'-diphosphate Binding Site on E. coli	
RNA Polymerase Using a Photoprobe, 8-Azidoguanosine 3', 5'-Bisphosphate	064
James R. Owens, A-Young M. Woody, and Boyd E. Haley	964
Pseudomonas diminuta LPS with a New Endotoxic Lipid A Structure	
Nobuhiko Kasai, Satoru Arata, Jun-ichi Mashimo, Yuri Akiyama, Chiharu Tanaka, Kiyoshi Egawa, and Shigenori Tanaka	972
Nonoxidative Ethanol Metabolism in Human Leukocytes: Detection of Fatty Acid Ethyl	712
Ester Synthase Activity Michael Wright, Karen J. Bieser,	
Paula M. Kinnunen, and Louis G. Lange	979
Isolation of a Human Liver Ligandin cDNA Clone and Demonstration of Sequence	
Homology at Ligandin Loci in Rats and Humans Loredana Butera,	
Janet R. Monnier, Eggerton Campbell, and Madhu M. Bhargava	986
Long-Chained 1-Mercapto-n-alkanes as Potent Inhibitors toward Liver Alcohol	
Dehydrogenase Kiyoshi Miwa, Haruhiro Okuda, Kenichiro Ogura,	007
and Tadashi Watabe	993
25-Hydroxylation of Vitamin D ₃ in Rat Liver: Roles of Mitochondrial and Microsomal Cytochrome P-450 Helena Dahlbäck and Kjell Wikvall	999
Amidohydrolysis of N-Methylhydantoin Coupled with ATP Hydrolysis	,,,
Jong Min Kim Sakayu Shimizu, and Hideaki Yamada	1006
A Receptor Binding Assay for Endoxin in Human Urine	
G. Siegenthaler, H. Favre, B. Martin, and D. Roth	1013
Genomic Clone of hst with Transforming Activity from a Patient with Acute Leukemia	
Teruhiko Yoshida, Hiromi Sakamoto, Kiyoshi Miyagawa, Peter F. R. Little,	
Masaaki Terada, and Takashi Sugimura	1019
Isolated Bovine Myocardial Sarcolemma and Sarcoplasmic Reticulum Vesicles Contain Tightly Bound Calcium-Dependent Protease Inhibitor	
Ronald L. Mellgren, Richard D. Lane, and Sham S. Kakar	1025
ADP-Ribosylation by Type C1 and D Botulinum Neurotoxins: Stimulation by Guanine	1023
Nucleotides and Inhibition by Guanidino-Containing Compounds	
Yasuhiro Ohashi, Tomoya Kamiya, Motohatsu Fujiwara, and Shuh Narumiya	1032
Acetylcholine Blocks Ca ²⁺ -Induced Closure of Outward K ⁺ Currents in Isolated Patches of	
Canine Atrial Myocyte Sarcolemma James K. Bubien and W. T. Woods, Jr.	1039
The Mechanism of the Hypolipidemic Effect of Garlic Oil Extract in Rats Fed on High	1015
	1046
Evidence for the Involvement of a Single Major Species of Replicative Complex in DNA Synthesis from Two Diverse Nuclear Replicons in Yeast S. Michal Jazwinski	1052
Fourier Transform Infrared Spectra of Aqueous Protein Mixtures Using a Novel Attenuated	1055
Total Internal Reflectance Cell with Infrared Fibers	
Shimon Simhony, Edward M. Kosower, and Abraham Katzir	1059
Synthesis and Application of ¹³ C-Enriched Phenylisothiocyanate as a ¹³ C NMR Protein	
Probe Jeffrey J. Ares, John W. Fowble, Thomas G. Urchek,	
and Duane D. Miller	1064
Protein Kinase C and Meiotic Maturation of Surf Clam Oocytes François Dubé, Roy Golsteyn, and Louise Dufresne	1072
The Induction of a Specific Form of Cytochrome P-450 (P-450j) by Fasting	10/2
Junyan Hong, Jinmei Pan, Frank J. Gonzalez,	
Harry V. Gelboin, and Chung S. Yang	1077

Identification of the Rts 1 DNA Fragment Responsible for Temperature-Sensitive Growth of	
Host Cells Harboring a Drug-Resistance Factor Rts 1 Noriyuki Okawa, Masahiko Tanaka, Sheldon Finver, and Akira Kaji	1004
	1084
Inhibition of Poly(ADP-Ribose) Synthetase Potentiates Cell Dacarbazine Cytotoxicity Ulf Lönn and Sigrid Lönn	1000
	1003
Purification and Characterization of Erythroid Differentiation Factor (EDF) Isolated from Human Leukemia Cell Line THP-1 Yuzuru Eto, Tomoko Tsuji,	
	1005
	1095
Base Liberation from Nucleotides by Superoxide and Intramolecular Enhancement Effect of	
Phosphate Group Hiroshi Yamane, Nobuhisa Yada,	1104
	1104
Expression of C-Type Virus in Nondifferentiating Rat Myoblasts Correlates with Neoplastic	
Progression Marie-Pierre Leibovitch, Serge A. Leibovitch,	1111
Josette Hillion, Martine Guillier, and Jacques Harel	1111
ERRATA	
Volume 141, Number 3, December 30, 1986: Mien-Chie Hung, Karol L. Thompson,	
Ing-Ming Chiu, and Marsha Rich Rosner, "Characterization of Rodent Epidermal	
Growth Factor Receptor Transcripts Using a Mouse Genomic Probe," pp.	
1109-1115	1120
Volume 141, Number 2, December 15, 1986: Kirk T. Kitchin and Janice L. Brown,	
"1,2-Dibromoethane Causes Rat Hepatic DNA Damage at Low Doses," pp.	
723-727	1121
Author Index for Volume 142	1123
Volume 143, Number 1, February 27, 1987	
AUTHOR INDEX, Volume 143, Number 1, February 27, 1987	iii
Effect of Platelet-Activating Factor on β-Adrenoceptors in Human Lung	111
Devendra K. Agrawal and Robert G. Townley	1
Chinchilla "Big" and "Little" Gastrins Yasuhisa Shinomura, John Eng,	
and Rosalyn S. Yalow	7
The Rabbit Differs from Other Mammals in the Tissue Distribution of Alkaline Phosphatase	,
Isoenzymes Tomoo Noguchi and Yoshihisa Yamashita	15
Hydrogen Peroxide Elicits Activation of Bovine Pulmonary Arterial Soluble Guanylate	
Cyclase by a Mechanism Associated with Its Metabolism by Catalase	
Michael S. Wolin and Theresa M. Burke	20
Inhibition of Proliferation of Cultured Rat Liver Epithelial Cells at Specific Cell Cycle	
Stages by Transforming Growth Factor- β	
Perry Lin, Chi Liu, Ming-Sound Tsao, and Joe W. Grisham	26
Sarcolemmal Phospholipid N-Methylation in Genetically Determined Hamster	
Cardiomyopathy K. Okumura, V. Panagia, G. Jasmin, and N. S. Dhalla	31
γ Interferon Inhibits Basal and Interleukin 1-Induced Prostaglandin Production and Bone	31
Resorption in Neonatal Mouse Calvaria O. Hoffmann, K. Klaushofer,	
H. Gleispach, H. J. Leis, T. Luger, K. Koller, and M. Peterlik	38
Modified Peptides Which Display Potent and Specific Inhibition of Human Renin	50
Jay R. Luly, Jacob J. Plattner, Herman Stein, Nwe Yi, Jeffrey Soderquist,	
Patrick A. Marcotte, Hollis D. Kleinert, and Thomas J. Perun	44
Drug Metabolism by the Human Hepatoma Cell, Hep G2	
Shigeru Sassa, Osamu Sugita, Richard A. Galbraith, and Attallah Kappas	52
New Substrates for Enkephalinase (Neutral Endopeptidase) Based on Fluorescence Energy	
Transfer Bernard Malfroy and John Burnier	58
The Rates of Fast Reactions of Carbon Dioxide and Bicarbonate in Human Erythrocytes	
Measured by Carbon-13 NMR David W. Hoffman and Robert W. Henkens	67
Volume Expansion-Induced Changes in Renal Tubular Membrane Protein Phosphorylation	
Tai C. Chen, Jeannette Humpierres, Dean Hanna, Susan B. Perregaux,	
Itt C. Chen, Jeannette Humpter ies, Dean Hanna, Susan D. 1 et rexuux.	

Ira Mills, Renee M. Barge, J. Enrique Silva, and P. Reed Larsen

Naseema M. Hoosein, Alan M. Mahrenholz, P. C. Andrews, and Ruth S. Gurd

81

87

Insulin Stimulation of Iodothyronine 5'-Deiodinase in Rat Brown Adipocytes

Rapid Mechanical Changes in the Amphibian Retina Evoked by Brief Light Pulses

Biological Activities of Catfish Glucagon and Glucagonlike Peptide

I. Tasaki and P. M. Byrne	93
Identification of a Characteristic Cytosolic Polypeptide of Rat Preneoplastic Hepatocyte Nodules as Placental Glutathione S-Transferase	,,,
T. H. Rushmore, R. N. S. Sharma, M. W. Roomi, L. Harris, K. Satoh, K. Sato, R. K. Murray, and E. Farber	98
Proofreading of a Mutagenic Nucleotide, N ⁴ -Aminodeoxycytidylic Acid, by Escherichia	70
coli DNA Polymerase I Mitsuko Takahashi, Kazuo Negishi, and Hikoya Hayatsu	104
A Specific α -Fetoprotein Gene Binding Protein in α -Fetoprotein Producing Rat Hepatomas Zhi Wang, Gilbert J. Cote, and Jen-Fu Chiu	110
C-13 NMR Spectral Studies of the Thyroid Hormone Transport Protein, Transthyretin, and the Pancreatic Insulin Storage Moiety, the Zinc-Insulin Hexamer	
D. J. Craik, J. G. Hall, and K. A. Higgins	116
A 500 MHz ¹ H NMR Spectroscopic Study of Met ⁵ -Enkephalinamide in Aqueous Solution: Ethanol-Induced Conformational Changes	
V. Renugopalakrishnan, SG. Huang, and R. S. Rapaka	126
Monoclonal Antibodies to Angiotensin II Thomas M. Reilly, Andrew T. Chiu, and Pieter B. M. W. M. Timmermans	133
The Effect of Cyclophosphamide on Arginine Vasopressin and the Atrial Natriuretic Factor P. Larose, H. Ong, and P. du Souich	140
Suppression of Matrix Protein Synthesis by Herpes Simplex Virus in Bovine Smooth	
Muscle Cells M. S. Lashgari, H. M. Friedman, and N. A. Kefalides Serotonin-Induced Actin Polymerization and Association with Cytoskeletal Elements in	145
Cultured Bovine Aortic Endothelium J. S. Alexander, H. B. Hechtman, and David Shepro	152
Plasma Immunoreactive Atrial Natriuretic Factor (IR-ANF) Increases Markedly after α_2 -Adrenergic Stimulation with Clonidine in Normally Hydrated Rats	
Boguslawa Baranowska, Jolanta Gutkowska, Marc Cantin, and Jacques Genest Identification of the Phosphate Translocator from Maize Mesophyll Chloroplasts	159
Andrew G. Thompson, Michael A. Brailsford, and R. Brian Beechey Photoregulation Process of Sorghum Leaf Phosphoenolypyruvate Carboxylase: Study with	164
Monoclonal Antibodies Martine Thomas, Claude Crétin, Eliane Keryer,	170
Jean Vidal, Pierre Gadal, Jean-Michel Bidart, and Claude Bohuon Sulfated Oligosaccharides in Human Lysosomal Enzymes Thomas Braulke,	170
Annette Hille, Wieland B. Huttner, Andrej Hasilik, and Kurt von Figura Human Prepro Atrial Natriuretic Factors 26-55, 56-92, and 104-123 Increase Renal	178
Guanylate Cyclase Activity David L. Vesely, John M. Bayliss, and Alan L. Sallman	186
Do myc, fos, and E1A Function as Protein Phosphatase Inhibitors? Martin Rechsteiner	194
Heterogeneity of Insulinlike Growth Factor-I Affinity for the Insulinlike Growth Factor-II Receptor: Comparison of Natural, Synthetic, and Recombinant DNA-Derived Insulinlike Growth Factor-I R. G. Rosenfeld, C. A. Conover,	
D. Hodges, P. D. K. Lee, P. Misra, R. L. Hintz, and C. H. Li Binding of Zinc(II) to β -D-Fructose 2,6-Bisphosphate	199
María Jesús Costas and José Carlos Cameselle Anomeric Specificity of Glucose Effect on cAMP, Fructose 1, 6-Bisphosphatase, and	206
Trehalase in Yeast Yukiyasu Toyoda, Hirohisa Fujii, Ichitomo Miwa, Jun Okuda, and Jose Sy	212

Activation of Interleukin-2 Receptor Gene by Forskolin and Cyclic AMP Analogs Shuh Narumiya, Masakazu Hirata, Tsunehisa Nanba, Toshio Nikaido, Yoshihisa Taniguchi, Yutaka Tagaya, Masafumi Okada, Hiroaki Mitsuya, and Junji Yodoi	753
Heterogeneity of Cholecystokinin Receptors in Pancreas Laird D. Madison, James D. Jamieson, and Steven A. Rosenzweig	761
Quantification by Fluorescence of Apurinic Sites in DNA	768
Jean-Rémi Bertrand, Claude Malvy, and Claude Paoletti AEV-Transformed Chicken Erythroid Cells Secrete Autocrine Factors Which Promote Soft Agar Growth and Block Erythroleukemia Cell Differentiation	
B. Fasciotto, D. Kanazir, J. P. Durkin, J. F. Whitfield, and V. Krsmanovic Growth Hormone Regulates Expression of Rat Liver Cytochrome P-450 _{15\beta} at a Pretranslational Level Catriona MacGeoch, Edward T. Morgan,	775
Barbara Cordell, and Jan-Åke Gustafsson C-Terminally Extended Ocytocin and Pro-ocytocin: Neurophysin Peptide Converting Enzyme in Bovine Corpus Luteum Christine Clamagirand, Maryse Camier,	782
Cristine Fahy, Chantal Clavreul, Christophe Créminon, and Paul Cohen ERRATA	789
Volume 141, Number 3, December 30, 1986: Jay A. Glasel and Philip N. Borer, "NMR Studies of Flexible Opiate Conformations at Monoclonal Antibody Binding Sites. I. Transferred Nuclear Overhauser Effects Show Bound Conformations," pp. 1267-1273	797
Volume 142, Number 3, February 13, 1987: Noriyuki Okawa, Masahiko Tanaka, Sheldon Finver, and Akira Kaji, "Identification of the Rts 1 DNA Fragment Responsible for Temperature-Sensitive Growth of Host Cells Harboring a Drug-Resistance Factor Rts 1," pp. 1084-1088	797
Volume 143, Number 3, March 30, 1987	
AUTHOR INDEX, Volume 143, Number 3, March 30, 1987 β-Galactosidase from Rat Epididymal Fluid Is Bound by a Recognition Site Attached to Membranes of the Epididymis Different from the Phosphomannosyl Receptor	ii
Miguel A. Sosa, Luis S. Mayorga, and Francisco Bertini Light-Induced Modifications of DNA by Gilvocarcin V and Its Aglycone	799
Yuk-Ching Tse-Dinh and Lawrence R. McGee	808
Presence of the Atrial Natriuretic Peptide in Human Cerebrospinal Fluid Fumiaki Marumo, Takashi Masuda, and Kenji Ando	813
Presence of the Atrial Natriuretic Peptide in Human Cerebrospinal Fluid Fumiaki Marumo, Takashi Masuda, and Kenji Ando The Amino Terminal Region of the p56 lck from LSTRA Exerts Negative Modulation on the Tyrosine Kinase Activity S. Fischer, R. Fagard, I. Boulet, and J. C. Gesquière Selective Enrichment of Phytosphingosine in Glycosphingolipids of Isolated Human	813 819
Presence of the Atrial Natriuretic Peptide in Human Cerebrospinal Fluid Fumiaki Marumo, Takashi Masuda, and Kenji Ando The Amino Terminal Region of the p56 lck from LSTRA Exerts Negative Modulation on the Tyrosine Kinase Activity S. Fischer, R. Fagard, I. Boulet, and J. C. Gesquière Selective Enrichment of Phytosphingosine in Glycosphingolipids of Isolated Human Thyrocytes as Compared to the Whole Thyroid B. Bouchon, J. Portoukalian, J. Orgiazzi, and H. Bornet Effect of S-Adenosylhomocysteine on Insulin-Independent Release of Pyruvate	
Presence of the Atrial Natriuretic Peptide in Human Cerebrospinal Fluid Fumiaki Marumo, Takashi Masuda, and Kenji Ando The Amino Terminal Region of the p56 lck from LSTRA Exerts Negative Modulation on the Tyrosine Kinase Activity S. Fischer, R. Fagard, I. Boulet, and J. C. Gesquière Selective Enrichment of Phytosphingosine in Glycosphingolipids of Isolated Human Thyrocytes as Compared to the Whole Thyroid B. Bouchon, J. Portoukalian, J. Orgiazzi, and H. Bornet Effect of S-Adenosylhomocysteine on Insulin-Independent Release of Pyruvate Dehydrogenase Activator from Rat Adipocyte Plasma Membranes Elizabeth Sykes, Sandhya Ghag, and Frederick L. Kiechle	819
Presence of the Atrial Natriuretic Peptide in Human Cerebrospinal Fluid Fumiaki Marumo, Takashi Masuda, and Kenji Ando The Amino Terminal Region of the p56 lck from LSTRA Exerts Negative Modulation on the Tyrosine Kinase Activity S. Fischer, R. Fagard, I. Boulet, and J. C. Gesquière Selective Enrichment of Phytosphingosine in Glycosphingolipids of Isolated Human Thyrocytes as Compared to the Whole Thyroid B. Bouchon, J. Portoukalian, J. Orgiazzi, and H. Bornet Effect of S-Adenosylhomocysteine on Insulin-Independent Release of Pyruvate Dehydrogenase Activator from Rat Adipocyte Plasma Membranes Elizabeth Sykes, Sandhya Ghag, and Frederick L. Kiechle Conservation of E6 and E7 Regions of Human Papillomavirus Types 16 and 18 Present in Cervical Cancers Naoko Takebe, Youko Tsunokawa, Shiro Nozawa,	819 827 832
Presence of the Atrial Natriuretic Peptide in Human Cerebrospinal Fluid Fumiaki Marumo, Takashi Masuda, and Kenji Ando The Amino Terminal Region of the p56 lck from LSTRA Exerts Negative Modulation on the Tyrosine Kinase Activity S. Fischer, R. Fagard, I. Boulet, and J. C. Gesquière Selective Enrichment of Phytosphingosine in Glycosphingolipids of Isolated Human Thyrocytes as Compared to the Whole Thyroid B. Bouchon, J. Portoukalian, J. Orgiazzi, and H. Bornet Effect of S-Adenosylhomocysteine on Insulin-Independent Release of Pyruvate Dehydrogenase Activator from Rat Adipocyte Plasma Membranes Elizabeth Sykes, Sandhya Ghag, and Frederick L. Kiechle Conservation of E6 and E7 Regions of Human Papillomavirus Types 16 and 18 Present in Cervical Cancers Naoko Takebe, Youko Tsunokawa, Shiro Nozawa, Masaaki Terada, and Takashi Sugimura Do Endotoxins Devoid of 3-Deoxy-D-manno-2-octulosonic Acid Exist?	819827832837
Presence of the Atrial Natriuretic Peptide in Human Cerebrospinal Fluid Fumiaki Marumo, Takashi Masuda, and Kenji Ando The Amino Terminal Region of the p56 lck from LSTRA Exerts Negative Modulation on the Tyrosine Kinase Activity S. Fischer, R. Fagard, I. Boulet, and J. C. Gesquière Selective Enrichment of Phytosphingosine in Glycosphingolipids of Isolated Human Thyrocytes as Compared to the Whole Thyroid B. Bouchon, J. Portoukalian, J. Orgiazzi, and H. Bornet Effect of S-Adenosylhomocysteine on Insulin-Independent Release of Pyruvate Dehydrogenase Activator from Rat Adipocyte Plasma Membranes Elizabeth Sykes, Sandhya Ghag, and Frederick L. Kiechle Conservation of E6 and E7 Regions of Human Papillomavirus Types 16 and 18 Present in Cervical Cancers Naoko Takebe, Youko Tsunokawa, Shiro Nozawa, Masaaki Terada, and Takashi Sugimura Do Endotoxins Devoid of 3-Deoxy-D-manno-2-octulosonic Acid Exist? Martine Caroff, Souad Lebbar, and Ladislas Szabó Biological Effect of Antifucosyl GM1 Ganglioside Antibody on Cyclic Adenosine 3',5'-Monophosphate Production in FRTL5 Rat Thyroid Cells Shinji Kosugi, Takashi Akamizu, Masumi Miyamoto, Hideo Sugawa, Masao Iwamori,	819 827 832

Essentiality of Glu-48 of Ribulose Bisphosphate Carboxylase/Oxygenase as Demonstrated by Site-Directed Mutagenesis Fred C. Hartman, Frank W. Larimer, Richard J. Mural, Richard Machanoff, and Thomas S. Soper	1158
Effect of Cross-Linkers on the Bacteriorhodopsin Photocycle	
L. Packer, E. Hrabeta, A. E. Robinson, N. G. Abdulaev, A. V. Kiselev,	1164
S. G. Taneva, R. Tóth-Boconádi, and L. Keszthelyi	1104
Adriamycin Resistance in HL60 Cells in the Absence of Detectable P-Glycoprotein	1171
Tim McGrath and Melvin S. Center	11/1
O-Alkyl Lipid Synthesis: The Mechanism of the Acyl Dihydroxyacetone Phosphate Fatty	
Acid Exchange Reaction Samuel J. Friedberg, Susan T. Weintraub,	1177
Dorothy Peterson, and Neera Satsangi	11//
Antilipoperoxidation Action of Food Restriction Serge Laganiere and Byung P. Yu College of Chapter of College of Chapter and Chapte	1105
Forskolin-Insensitive Adenylate Cyclase in Cultured Cells of Choristoneura fumiferana (Insecta) John W. D. Gole, Gregory L. Orr, and Roger G. H. Downer	1102
(Insecta) John W. D. Gole, Gregory L. Orr, and Roger G. H. Downer Cell-Free Activation of Phagocyte NADPH-Oxidase: Tissue and Differentiation-Specific	1172
Expression of Cytosolic Cofactor Activity John F. Parkinson, Luke P. Akard,	
Expression of Cytosolic Cofactor Activity John F. Parkinson, Luke P. Akard, Michael J. Schell, and Theodore G. Gabig	1198
The Role of Multivalency in Antibody Mediated Liposome Targeting	11/0
Kelly S. Houck and Leaf Huang	1205
· · · · · · · · · · · · · · · · · · ·	1205
Induction by Fibroblast Growth Factor of Angiotensin Converting Enzyme in Vascular Endothelial Cells in Vitro Tetsuro Okabe, Kazuo Yamagata, Michio Fujisawa,	
Endothelial Cells in Vitro Tetsuro Okabe, Kazuo Yamagata, Michio Fujisawa, Fumimaro Takaku, Hiroshi Hidaka, and Yoshimi Umezawa	1211
Calcium/Calmodulin Regulation of ATPase Activity and Endogenous Phosphorylation of	1211
Mammalian Brain Actomyosin Mesus Aparecido Ferro and Jesus Aparecido Ferro and	
Roy Edward Larson	1217
Involvement of Leukocyte and Glucocorticoid in the Acute-Phase Response of	1217
Angiotensinogen Hiroshi Okamoto, Yutaka Ohashi, and Norio Itoh	1225
N-Acetyltransferase Activity, Hydroxyindole-O-methyltransferase Activity, and Melatonin	1225
Levels in the Harderian Glands of the Female Syrian Hamster: Changes during the	
Light: Dark Cycle and the Effect of 6-Parachlorophenylalanine Administration	
Armando Menendez-Pelaez, Kimberly A. Howes, Aldo Gonzalez-Brito,	
and Russel J. Reiter	1231
Molecular Cloning and Sequence Analysis of Full-Length cDNA for mRNA of	
Adrenodoxin Oxidoreductase from Bovine Adrenal Cortex	
Yasuki Nonaka, Hiroko Murakami, Yoshiyasu Yabusaki, Seiki Kuramitsu,	
Hiroyuki Kagamiyama, Toshio Yamano, and Mitsuhiro Okamoto	1239
Identification of a Long Form of Cystatin from Human Saliva by Rapid Microbore HPLC	
Mapping David H. Hawke, Pau M. Yuan, Kenneth J. Wilson,	
and Michael W. Hunkapiller	1248
The Lack of PDGF-Stimulated PGE ₂ Release from ras-Transformed NIH-3T3 Cells Results	1210
from Reduced Phospholipase C but Not Phospholipase A ₂ Activity	
C. W. Benjamin, W. Gary Tarpley, and Robert R. Gorman	1254
Purification and Partial Characterization of Dimeric Dihydrodiol Dehydrogenase from	
Monkey Kidney Akira Hara, Kouji Mouri, and Hideo Sawada	1260
Guanosine 5'-(\gamma-Thio)triphosphate Stimulates Arachidonic Acid Liberation in	
Permeabilized Rat Peritoneal Mast Cells Yukio Okano, Kouji Yamada,	
Koh Yano, and Yoshinori Nozawa	1267
Reversion of Hydroxyurea Resistance, Decline in Ribonucleotide Reductase Activity, and	
Loss of M2 Gene Amplification Grant A. McClarty, Arthur K. Chan,	
Bob K. Choy, and Jim A. Wright	1276
Heterogeneity of Presynaptic Calcium Channels Revealed by Species Differences in the	
Sensitivity of Synaptosomal ⁴⁵ Ca Entry to ω-Conotoxin	
J. B. Suszkiw, M. M. Murawsky, and R. C. Fortner	1283
Decreased Level of Calpain Inhibitor Activity in Kidney from Milan Hypertensive Rats	
S. Pontremoli, E. Melloni, F. Salamino, B. Sparatore, P. Viotti, M. Michetti,	1207
L. Duzzi, and G. Bianchi	146/

Potential Mechanisms of Cytosolic Calcium Modulation in Interferon-γ Treated U937 Cells	
Jon B. Klein, Kenneth R. McLeish, Gerald Sonnenfeld, and William L. Dean	1295
Mitogenic Activity and Inositide Metabolism in Thrombin-Stimulated Pig Aorta	
Endothelial Cells J. Moscat, F. Moreno, and P. García-Barreno	1302
Amino-Terminal Sequence of a Phospholipid Transfer Protein from Rat Lung	
Jane D. Funkhouser	1310
Inhibitors of Protein Kinase C Block Activation of B Lymphocytes by Bacterial	
Lipopolysaccharide J. S. Rush and C. J. Waechter	1315
The Ca ²⁺ -Activated Protease (Calpain) Modulates Ca ²⁺ /Calmodulin Dependent Activity	
of Smooth Muscle Myosin Light Chain Kinase Masaaki Ito, Toshio Tanaka,	
Kazuo Nunoki, Hiroyoshi Hidaka, and Koichi Suzuki	1321
Increased Phosphorylation in Red Cell Membranes of Subjects Affected by Essential	
Hypertension Sandro Pontremoli, Edon Melloni, Bianca Sparatore,	
Franca Salamino, Roberto Pontremoli, and Alberto Tizianello	1329
The Formation and Stability of the Hypusine Containing Protein in Chinese Hamster Ovary	
Cells B. Marina Torrelio, Mercedes A. Paz, and Paul M. Gallop	1335
Steroid Receptor Antibodies in Autoimmune Disorders Mark Feldman	
Mechanistic Consequences of Charge Transfer Systems in Serine Proteases and	
Angiotensin: Semiempirical Computations A. Rauk, G. Hamilton,	
and G. J. Moore	1349
Conformational Properties of 3'-Azido-3'-deoxythymidine (AZT), an Inhibitor of HIV	
Reverse Transcriptase Pavel Herzyk, Allen Beveridge, and Stephen Neidle	1356
Rearrangement of Aminophospholipids in Bilayers from Sheep Platelet Plasma Membranes	1000
and Platelet Liposomes by Increasing Their Cholesterol Levels	
Jesús Sánchez-Yagüe, José A. Cabezas, and Marcial Llanillo	1362
Glycosylated Growth Hormone: Detection in Murine Pituitary Gland and Evidence of	1002
Physiological Fluctuations Y. N. Sinha and B. P. Jacobsen	1368
Protein Kinase C Phosphorylates Leukemia RNA Polymerase II	1500
Linda F. Chuang, Ronald H. Cooper, Peter Yau, E. Morton Bradbury,	
and Ronald Y. Chuang	1376
Insulin-Dependent Alterations of Phorbol Ester Binding to Adipocyte Subcellular	1570
Constituents: Evidence for the Involvement of Protein Kinase C in Insulin Action	
Harrihar A. Pershadsingh, Debra L. Shade, and Jay M. McDonald	139/
	1307
Influence of Association and of Positive Inotropic Drugs on Calcium Binding to Cardiac Troponin C Kornelia Jaquet and Ludwig M. G. Heilmeyer, Jr.	1200
Troponin C Kornelia Jaquet and Ludwig M. G. Heilmeyer, Jr. An Improved Method for the Detection of Malignancy by Proton NMR Spectroscopy of	1390
	1205
ERRATUM and Suzanne Wehrli	1397
Volume 144, Number 3, May 14, 1987: Dean A. Stetler, Morris Reichlin, Cheston M.	
Berlin, and Samson T. Jacob, "Autoantibodies against RNA Polymerase I in	1404
, 11	1404
Audior fluex for volume 143	1405
Volume 146, Number 1, July 15, 1987	
AUTHOR INDEX, Volume 146, Number 1, July 15, 1987	ii
Receptor for 1,25-Dihydroxyvitamin D in a Vascular Smooth Muscle Cell Line Derived	
from Rat Aorta Hiroyuki Kawashima	1
The Expression of Functional Erythropoietin Receptors on an Interleukin-3 Dependent Cell	_
Line Mamoru Sakaguchi, Yasuo Koishihara, Hiroyuki Tsuda, Kouji Fujimoto,	
Kazushi Shibuya, Makoto Kawakita, and Kiyoshi Takatsuki	7
Polycyclic Aromatic Hydrocarbons Cause Hepatic Porphyria in Iron-Loaded C57BL/10	•
Mice: Comparison of Uroporphyrinogen Decarboxylase Inhibition with Induction of	
Alkoxyphenoxazone Dealkylations Jean E. Francis and Andrew G. Smith	13
•	

The Antidiabetic Sulfonylurea Glibenclamide Is a Potent Blocker of the ATP-Modulated K ⁺ Channel in Insulin Secreting Cells Heidy Schmid-Antomarchi, Jan de Weille,	
Michel Fosset, and Michel Lazdunski	21
Murine T Cell Proliferation Can Be Specifically Augmented by Macrophages Fed with	
Specific Antigen:α-2-Macroglobulin Conjugate	
Toshiya Osada, Nobuhiro Noro, Yoichiro Kuroda, and Atsushi Ikai	26
Early and Late Mitogenic Events Induced by FGF on Bovine Epithelial Lens Cells Are Not	
Triggered by Hydrolysis of Polyphosphoinositides	
Michel Moenner, Isabelle Magnaldo, Gilles L'Allemain,	
Denis Barritault, and Jacques Pouysségur	32
In Situ and in Vitro Kinetics of Phenol Hydroxylase	
Monika Mörtberg and Halina Y. Neujahr	41
Alteration by v-Ki-ras in NaF, Cholera Toxin, and Forskolin-Induced Adenylate Cyclase Activation in NIH/3T3 Fibroblast Cells	
Lisa Konishi-Imamura, Makoto Noda, and Yasuyuki Nomura	47
Inhibition of NADH Oxidation by Pyridine Derivatives	
Rona R. Ramsay, Kathleen A. McKeown, Elizabeth Anne Johnson,	
Raymond G. Booth, and Thomas P. Singer	53
Selective Inhibition of DNA Polymerase α by a Polysaccharide Purified from Slime of	
Physarum polycephalum Masaki Shioda and Kimiko Murakami-Murofushi	61
Temperature Dependence of Cytotoxicity of Several Genotoxicants in Chinese Hamster V79	
Cells: Bleomycin, Paraquat, and Some N-Alkyl-N-nitrosoureas	
Takayoshi Suzuki, Kohfuku Kohda, and Yutaka Kawazoe	67
Modulation of Bacillus subtilis \alpha-Amylase Promoter Activity by the Presence of a	
Palindromic Sequence in Front of the Gene	70
Jun-ichi Takano, Takeshi Kinoshita, and Kunio Yamane	73
Decreased Sensitivity of Spontaneously Hypertensive Rat Aortic Smooth Muscle to Vasorelaxation by Atriopeptin III Marie D. Sauro and David F. Fitzpatrick	80
Vasorelaxation by Atriopeptin III Marie D. Sauro and David F. Fitzpatrick Hepatocarcinogens Induce Decrease in mRNA Transcripts of Receptors for Insulin and	80
Epidermal Growth Factor in the Rat Liver	
David L. Hwang, Arye Lev-Ran, and Yee-Chaw Tay	87
Some Properties of Tissue-Type Plasminogen Activator Reconstituted onto Phospholipid	07
and/or Glycolipid Vesicles	
Shinji Soeda, Motoharu Kakiki, Hiroshi Shimeno, and Atsuo Nagamatsu	94
Purification of the Yellow Fluorescent Protein from Vibrio fischeri and Identity of the Flavin	
Chromophore P. Macheroux, K. U. Schmidt, P. Steinerstauch, S. Ghisla,	
P. Colepicolo, R. Buntic, and J. W. Hastings	101
Interaction of Tetrapyrrolic Rings with Rhodamine 110 and 123 and with Rhodamine 110	
Derivatives Bearing a Peptidic Side Chain Patrice Morliere, Walter F. Mangel,	
René Santus, Gabriele Huppe, Jean-Philippe Reyftmann, and Elli Kohen	107
Protein Synthesis in Rabbit Reticulocytes: Mg ²⁺ -Inhibition of Ternary Complex	
(Met-tRNA _f · eIF-2 · GTP) Formation by Reticulocyte eIF-2	
Ananda L. Roy, Debopam Chakrabarti, and Naba K. Gupta	114
Is EGF a Physiological Inhibitor of Mouse Mammary Casein Synthesis? Unphysiological	
Responses to Pharmacological Levels of Hormones Lakshmanan Sankaran	
and Yale J. Topper	121
Induction of Epidermal NAD(P)H: Quinone Reductase by Chemical Carcinogens: A	
Possible Mechanism for Detoxification Wasiuddin A. Khan, Mukul Das,	
Sally Stick, Seema Javed, David R. Bickers, and Hasan Mukhtar	126
Stopped-Flow Investigation of the Reaction between Vitamin E Radical and Vitamin C in	
Solution Kazuo Mukai, Kazuyuki Fukuda, Kazuhiko Ishizu,	10.
and Youichi Kitamura Characterization of Protein Vinese C from Normal and Transformed Cultural Municipal	134
Characterization of Protein Kinase C from Normal and Transformed Cultured Murine Fibroblasts Patricia G. McCaffrey, Marsha R. Rosner, Ushio Kikkawa	
Fibroblasts Patricia G. McCaffrey, Marsha R. Rosner, Ushio Kikkawa, Kazuo Sekiguchi, Kouji Ogita, Katsuhiko Ase, and Yasutomi Nishizuka	140
nazuo senigueni, nouji ogiiu, naisuniko Ase, ana iasuiomi Nisnizuka	140

Inhibition Studies of Three Classes of Desulfovibrio Hydrogenase: Application to the Further Characterization of the Multiple Hydrogenases Found in Desulfovibrio vulgaris Hildenborough Yves Berlier, Guy D. Fauque, Jean LeGall,	
Eui S. Choi, Harry D. Peck, Jr., and Paul A. Lespinat	147
Involvement of Endopeptidase 24.15 in the Inactivation of Bradykinin by Rat Brain Slices J. R. McDermott, A. M. Gibson, and J. D. Turner	154
In Vitro Biosynthesis of the Lysosomal Cathepsin H	
Yukio Nishimura and Keitaro Kato Low- and Ultralow-Temperature Magnetic Circular Dichroism Studies of Reduced Cytochromes P-450-Lm ₂ and P-420-LM ₂ and of Photoproducts of Their CO-Complexes: The Spin-State and Axial Ligation of Heme Iron	159
Yu. A. Sharonov, V. F. Pismensky, S. Greschner, and K. Ruckpaul Synthesis of P, P ⁴ -Di(adenosine 5')-tetraphosphate by Leucyl-tRNA Sythetase, Coupled with ATP Regeneration Senji Kitabatake, Munehiko Dombou, Isao Tomioka,	165
and Hiroshi Nakajima Red Cell Membrane (Na ⁺ +K ⁺)-ATPase in Diabetes Mellitus	173
M. Suhail and S. I. Rizvi	179
Erythroid Differentiation Factor Stimulates Hydrolysis of Polyphosphoinositide in Friend Erythroleukemia Cells Hiroshi Shibata, Etsuro Ogata, Yuzuru Etoh, Hiroshiro Shibai, and Itaru Kojima	187
EGF Inhibits the Differentiation of Adipocyte Precursors in Primary Cultures	
Mechanism of Protein Kinase C Inhibition by Sphingosine Ginette Serrero	194
Mohammad D. Bazzi and Gary L. Nelsestuen	203
Comparative Effects of Polymyxin B, Phorbol Ester, and Bryostatin on Protein Phosphorylation, Protein Kinase C Translocation, Phospholipid Metabolism, and Differentiation of HL60 Cells Zoltan Kiss, Eva Deli, Peggy R. Girard,	208
George R. Pettit, and J. F. Kuo The Dynamics of the Testosterone Response of Perifused Mouse Leydig Cells to hCG and	200
Arginine Vasopressin A. Tahri-Joutei, M. T. Latreille, and G. Pointis Characterization of Rabbit Cytochrome P-450IIC4 cDNA and Induction by Phenobarbital of Related Hepatic mRNA Levels	216
Jian Zhao, John K. Leighton, and Byron Kemper High-Pressure Infrared Spectroscopic Study of Human Proinsulin Gene Expression in Live Escherichia coli Cells Patrick T. T. Wong, Diana M. Zahab, Saran A. Narang,	224
and Wing L. Sung	232
An Activated S6 Kinase in Regenerating Rat Liver Keiko Mizuta, Eikichi Hashimoto, Youichirou Sakanoue, Shun-ichi Nakamura,	
Hiroki Kondo, and Hirohei Yamamura	239
A Point Mutation at Condon 13 of the N-ras Oncogene in a Human Stomach Cancer Junji Nishida, Yukio Kobayashi, Hisamaru Hirai, and Fumimaro Takaku	247
NADP ⁺ Phosphatase: A Novel Mitochondrial Enzyme Christoph Richter Deoxyribonucleoside-Triphosphate Imbalance Death: Deoxyadenosine-Induced dNTP	253
Imbalance and DNA Double-Strand Breaks in Mouse FM3A Cells and the Mechanism of Cell Death Akiko Yoshioka, Shohei Tanaka, Osamu Hiraoka, Yuji Koyama, Yasuhide Hirota, and Yusuke Wataya	258
Newly Identified, Basic Hemolymph Proteins from Noctuid Species	
Grace Jones, Mietek Wozniak, and Davy Jones Differential Stability of the Higher Order Structure of Chromatin Associated with Genes Having Different Transcriptional Activity Matilde Jose, Jean-Louis Nahon,	265
José-Maria Sala-Trepat, and Pere Puigdomènech	270
Effect of a Collagen-Derived Octapeptide on Phosphoinositide Turnover and 43K Protein Phosphorylation in Collagen-Activated Platelets A. Karniguian, F. Rendu, F. Grelac, M. Lebret, and Y. J. Legrand	277
1. Oreme, m. Levrei, and 1. J. Legrand	-, , ,

Inositol(1,3,4,5)tetrakisphosphate-Induced Activation of Sea Urchin Eggs Requires the Presence of Inositol Trisphosphate R. F. Irvine and R. M. Moor Microbore HPLC/Mass Spectrometry for the Analysis of Peptide Mixtures Using a Continuous Flow Interface	284
Richard M. Caprioli, Beverly DaGue, Terry Fan, and William T. Moore	291
Early Plasma Membrane Depolarization by α-Interferon: Biologic Correlation with Antiproliferative Signal Philip M. Grimley and Adorjan Aszalos	300
Chimeric Peptides as a Vehicle for Peptide Pharmaceutical Delivery through the	
Blood-Brain Barrier William M. Pardridge, Arno K. Kumagai, and Jody B. Eisenberg	307
Effects of Calcium Channel Activators BAY-K8644 and CGP-28392 on Steroidogenesis in	307
Granulosa Cells of the Domestic Hen Elikplimi K. Asem	
and Benjamin K. Tsang	314
Direct Evidence for the Modulation of Human Platelet Cytosolic Free Ca ²⁺ by Intracellular	
Cyclic AMP Produced with a Photoactivatable Derivative	
D. Blache, M. Ciavatti, G. Ponsin, and J. Nargeot	321
cDNA Clones Encoding Bovine γ-Crystallins Regine E. Hay, Wendell D. Woods,	332
Robert L. Church, and J. Mark Petrash	332
Pertussis Toxin Inhibits Stimulated Motility Independently of the Adenylate Cyclase Pathway in Human Melanoma Cells Mary L. Stracke, Raouf Guirguis,	
Lance A. Liotta, and Elliott Schiffmann	339
The Importance of Arginine 171 in Substrate Binding by Bacillus stearothermophilus	
Lactate Dehydrogenase Keith W. Hart, Anthony R. Clarke, Dale B. Wigley,	
William N. Chia, David A. Barstow, Tony Atkinson, and J. John Holbrook	346
Ontogenesis of TRH mRNA in the Rat Pancreas A. Dutour, P. Giraud, C. Kowalski,	
L'H. Ouafik, P. Salers, V. Strbak, and C. Oliver	354
Interesterification and Synthesis by Candida cylindracea Lipase in Microemulsions	261
M. Bello, D. Thomas, and M. D. Legoy	361
Cloning and Sequencing of <i>Plasmodium falciparum</i> DNA Fragments Containing Repetitive Regions Potentially Coding for Histidine-Rich Proteins: Identification of Two Over-	
lapping Reading Frames Reijer Lenstra, Luc d'Auriol, Beatrice Andrieu,	
Jacques Le Bras, and Francis Galibert	368
Volume 146, Number 2, July 31, 1987	
AUTHOR INDEX, Volume 146, Number 2, July 31, 1987	ii
Retinal Rod GTPase Turnover Rate Increases with Concentration: A Key to the Control of	
Visual Excitation? E. A. Dratz, J. W. Lewis, L.E. Schaechter, K. R. Parker, and D. S. Kliger	379
Transforming Growth Factor β Inhibits Leydig Cell Steroidogenesis in Primary Culture	
	317
T. Lin, J. Blaisdell, and J. F. Haskell	387
T. Lin, J. Blaisdell, and J. F. Haskell A c-Ki-ras Oncogene Is Activated, Amplified, and Overexpressed in a Human	
T. Lin, J. Blaisdell, and J. F. Haskell A c-Ki-ras Oncogene Is Activated, Amplified, and Overexpressed in a Human Osteosarcoma Cell Line P. C. Nardeux, L. Daya-Grosjean, R. M. Landin,	387
T. Lin, J. Blaisdell, and J. F. Haskell A c-Ki-ras Oncogene Is Activated, Amplified, and Overexpressed in a Human Osteosarcoma Cell Line P. C. Nardeux, L. Daya-Grosjean, R. M. Landin, Y. Andéol, and H. G. Suàrez	
T. Lin, J. Blaisdell, and J. F. Haskell A c-Ki-ras Oncogene Is Activated, Amplified, and Overexpressed in a Human Osteosarcoma Cell Line P. C. Nardeux, L. Daya-Grosjean, R. M. Landin, Y. Andéol, and H. G. Suàrez Molecular Cloning of cDNA for Human Poly(ADP-ribose) Polymerase and Expression of	387
T. Lin, J. Blaisdell, and J. F. Haskell A c-Ki-ras Oncogene Is Activated, Amplified, and Overexpressed in a Human Osteosarcoma Cell Line P. C. Nardeux, L. Daya-Grosjean, R. M. Landin, Y. Andéol, and H. G. Suàrez Molecular Cloning of cDNA for Human Poly(ADP-ribose) Polymerase and Expression of Its Gene during HL-60 Cell Differentiation	387
T. Lin, J. Blaisdell, and J. F. Haskell A c-Ki-ras Oncogene Is Activated, Amplified, and Overexpressed in a Human Osteosarcoma Cell Line P. C. Nardeux, L. Daya-Grosjean, R. M. Landin, Y. Andéol, and H. G. Suàrez Molecular Cloning of cDNA for Human Poly(ADP-ribose) Polymerase and Expression of Its Gene during HL-60 Cell Differentiation Hisanori Suzuki, Kazuhiko Uchida, Hiroshi Shima, Takako Sato,	387 395
T. Lin, J. Blaisdell, and J. F. Haskell A c-Ki-ras Oncogene Is Activated, Amplified, and Overexpressed in a Human Osteosarcoma Cell Line P. C. Nardeux, L. Daya-Grosjean, R. M. Landin, Y. Andéol, and H. G. Suàrez Molecular Cloning of cDNA for Human Poly(ADP-ribose) Polymerase and Expression of Its Gene during HL-60 Cell Differentiation Hisanori Suzuki, Kazuhiko Uchida, Hiroshi Shima, Takako Sato, Takashi Okamoto, Teruyuki Kimura, and Masanao Miwa	387
T. Lin, J. Blaisdell, and J. F. Haskell A c-Ki-ras Oncogene Is Activated, Amplified, and Overexpressed in a Human Osteosarcoma Cell Line P. C. Nardeux, L. Daya-Grosjean, R. M. Landin, Y. Andéol, and H. G. Suàrez Molecular Cloning of cDNA for Human Poly(ADP-ribose) Polymerase and Expression of Its Gene during HL-60 Cell Differentiation Hisanori Suzuki, Kazuhiko Uchida, Hiroshi Shima, Takako Sato, Takashi Okamoto, Teruyuki Kimura, and Masanao Miwa Identification in Rat Brain of a 19-kDa Protein that Comigrates on Two-Dimensional	387 395
T. Lin, J. Blaisdell, and J. F. Haskell A c-Ki-ras Oncogene Is Activated, Amplified, and Overexpressed in a Human Osteosarcoma Cell Line P. C. Nardeux, L. Daya-Grosjean, R. M. Landin, Y. Andéol, and H. G. Suàrez Molecular Cloning of cDNA for Human Poly(ADP-ribose) Polymerase and Expression of Its Gene during HL-60 Cell Differentiation Hisanori Suzuki, Kazuhiko Uchida, Hiroshi Shima, Takako Sato, Takashi Okamoto, Teruyuki Kimura, and Masanao Miwa	387 395
T. Lin, J. Blaisdell, and J. F. Haskell A c-Ki-ras Oncogene Is Activated, Amplified, and Overexpressed in a Human Osteosarcoma Cell Line P. C. Nardeux, L. Daya-Grosjean, R. M. Landin, Y. Andéol, and H. G. Suàrez Molecular Cloning of cDNA for Human Poly(ADP-ribose) Polymerase and Expression of Its Gene during HL-60 Cell Differentiation Hisanori Suzuki, Kazuhiko Uchida, Hiroshi Shima, Takako Sato, Takashi Okamoto, Teruyuki Kimura, and Masanao Miwa Identification in Rat Brain of a 19-kDa Protein that Comigrates on Two-Dimensional Electrophoresis with p19, a Hormonally Regulated Phosphoprotein of Insulinoma Cells Ulrich K. Schubart and Ann Danoff Substitution of an Arginyl Residue for the Active Site Lysyl Residue (Lys258) of Aspartate	387 395 403
T. Lin, J. Blaisdell, and J. F. Haskell A c-Ki-ras Oncogene Is Activated, Amplified, and Overexpressed in a Human Osteosarcoma Cell Line P. C. Nardeux, L. Daya-Grosjean, R. M. Landin, Y. Andéol, and H. G. Suàrez Molecular Cloning of cDNA for Human Poly(ADP-ribose) Polymerase and Expression of Its Gene during HL-60 Cell Differentiation Hisanori Suzuki, Kazuhiko Uchida, Hiroshi Shima, Takako Sato, Takashi Okamoto, Teruyuki Kimura, and Masanao Miwa Identification in Rat Brain of a 19-kDa Protein that Comigrates on Two-Dimensional Electrophoresis with p19, a Hormonally Regulated Phosphoprotein of Insulinoma Cells Ulrich K. Schubart and Ann Danoff	387 395 403

Third Type of Secondary Structure: Noncooperative Mobile Conformation. Protein Data	
Bank Analysis A. A. Adzhubei, F. Eisenmenger, V. G. Tumanyan, M. Zinke,	
S. Brodzinski, and N. G. Esipova	934
Role of Protein Kinase C in Luteinizing Hormone-Releasing Hormone (LHRH)-Stimulated	
Progesterone Production in Rat Granulosa Cells Jian Wang and	
Peter C. K. Leung	939
Purification and Characterization of a Novel Human Angiogenic Factor (h-AF)	
Klaus Schulze Osthoff, Bärbel Frühbeis, Bruno Overwien,	
Brigitte Hilbig, and Clemens Sorg	945
Immunochemical Study of Role of Chargerin II, a Product of URFA6L of Mitochondrial	
DNA in Energy Transduction of Rat Liver Mitochondria	
J. Uchida, M. Takigawa, T. Yamane, T. Negama, I. Tani, and T. Higuti	953
Enhanced Potency Dipeptide Glycol Renin Inhibitors: Studies in Vitro and in the Conscious	
Rhesus Gunnar J. Hanson, John S. Baran, Harman S. Lowrie,	
Steven J. Sarussi, Po-Chang Yang, Maribeth Babler, Stephen E. Bittner,	
S. E. Papaioannou, and Gerald M. Walsh	959
Molecular Isolation and Sequence Determination of the cDNA for the Mouse Sperm-	
Specific Lactate Dehydrogenase-X Gene Kun C. Wu, Kaimin Chan,	
Chi-Yu G. Lee, and Yun-Fai Lau	964
Isolation of a Novel cDNA Clone for Human Tyrosine Hydroxylase: Alternative RNA	704
Splicing Produces Four Kinds of mRNA from a Single Gene Norio Kaneda,	
Kazuto Kobayashi, Hiroshi Ichinose, Fumio Kishi, Atsushi Nakazawa,	
Yoshikazu Kurosawa, Keisuke Fujita, and Toshiharu Nagatsu	971
Retinoic Acid Inhibition of Transplasmalemma Diferric Transferrin Reductase	9/1
I. L. Sun, W. Toole-Simms, F. L. Crane, E. S. Golub,	076
T. Díaz de Pagán, D. J. Morré, and H. Löw	976
³ H-Spiroperidol Binding Sites in Blood Platelets Asha Singh Khanna,	000
Ashok K. Agrawal, and Prahlad K. Seth	983
Ovarian Renin Gene Expression Is Regulated by Follicle-Stimulating Hormone	
Seong-Jin Kim, Masashi Shinjo, Masazumi Tada, Satoshi Usuki,	000
Akiyoshi Fukamizu, Hitoshi Miyazaki, and Kazuo Murakami	989
Chemotactic Response of Rat Mammary Adenocarcinoma Cell Clones to Tumor-Derived	
Cytokines Karen D. Atnip, Lee M. Carter, Garth L. Nicolson,	
and Mustafa Kh. Dabbous	996
Inhibitors of Sterol Synthesis: Dietary Administration of 5α -Cholest-8(14)-en-3 β -ol-15-	
one Inhibits the Intestinal Absorption of Cholesterol in Lymph-Cannulated Rats	
George J. Schroepfer, Jr., Armand Christophe, Dolores H. Needleman,	
Alemka Kisic, and Bette C. Sherrill	1003
Somatomedin-C/Insulin-like Growth Factor 1-like Material Secreted by Porcine Sertoli	
Cells in Vitro: Characterization and Regulation P. G. Chatelain, D. Naville,	
and J. M. Saez	1009
D-myo-Inositol (1,4)-Bisphosphate 1-Phosphatase: Partial Purification from Rat Liver and	
Characterization James D. Moyer, Ofer Reizes, Nicholas M. Dean,	
and Nancy Malinowski	1018
5α -Cholest-8(14)-en-3 β -ol-15-one: In Vivo Conversion to Cholesterol upon Oral Admin-	
istration to a Nonhuman Primate George J. Schroepfer, Jr.,	
Thomas N. Pajewski, Mark Hylarides, and Alemka Kisic	1027
Turnover Rates of HMB-CoA Reductase mRNA: Role of Pituitary and Thyroid Hormones	
W. Scott Simonet and Gene C. Ness	1033
Synthesis of Type IX Collagen: Effect of β -Xylosides Srinivasan Chandrasekhar	
and Anita K. Harvey	1040
Rapid Oxidative Stress Induced by N-Nitrosamines	
Markku Ahotupa, Valeria Bussacchini-Griot, Jean-Claude Béréziat,	
Anne-Marie Camus, and Helmut Bartsch	1047

Phosphatidyl Inositol Inhibition of a Sperm Cyclic AMP-Independent Protein Kinase	
Chinmoy S. Dey and Gopal C. Majumder	422
Inhibition of Gastric Acid Secretion by Human Calcitonin Gene-Related Peptide with	
Picomolar Potency in Guinea Pig Parietal Cell Preparations	
Yukio Umeda and Toshikazu Okada	430
Resynthesis of Insulin from Its A and B Chains in the Presence of Denaturants	
Yan-Qiu Qian and Chen-Lu Tsou	437
Characterization of Picomolar Affinity Binding Sites for [125I]-Human Calcitonin Gene-	437
Related Peptide in Rat Brain and Heart Hiroyuki Yoshizaki, Mari Takamiya,	
and Toshikazu Okada	443
Intra Blood-Cerebrospinal Fluid Barrier Detection of Hepatitis B Virus	
Chia C. Pao, Shaw-Yun Wu, Iou-Jih Hung, Kim-Thean Ng,	
Yun-Fan Liaw, and Szecheng J. Lo	452
Inhibition of Bombesin-Induced Mitogenesis by Pertussis Toxin: Dissociation from	
Phospholipase C Pathway Ian Zachary, Jonathan Millar, Eewa Nanberg,	
Theresa Higgins, and Enrique Rozengurt	456
Molecular Cloning of a Gene for a Member of Carcinoembryonic Antigen (CEA) Gene	450
Family: Signal Peptide and N-Terminal Domain Sequences of Nonspecific Cross-	
reacting Antigen (NCA) Shinzo Oikawa, Goro Kosaki, and Hiroshi Nakazato	464
Expression of cDNA Encoding Human Basic Fibroblast Growth Factor in Escherichia coli	
Makoto Iwane, Tsutomu Kurokawa, Reiko Sasada, Masaharu Seno,	
Shizue Nakagawa, and Koichi Igarashi	470
Characterization of Acidic and Basic Fibroblast Growth Factors in Brain, Retina, and	
Vitreous Chick Embryo F. Mascarelli, D. Raulais, M.F. Counis,	
and Y. Courtois	478
Inhibition of Cytochrome <i>P</i> -450-Linked Monooxygenase Systems by Naphthoquinones	470
Norio Muto, Kuniyo Inouye, Akira Inada, Tsutomu Nakanishi, and Liat Tan	487
	407
Barium Distinguishes Separate Calcium Targets for Synthesis and Secretion of Peptides in	
Neuroendocrine Cells J. A. Waschek, J. R. Dave, R. L. Eskay, and L. E. Eiden	495
13-Hydroxyoctadecadienoic Acid (13-HODE) Stimulates Prostacyclin Production by	
Endothelial Cells B. N. Yamaja Setty, Margarita Berger, and Marie J. Stuart	502
Paclobutrazol Inhibition of Sterol Biosynthesis in a Cell Suspension Culture and Evidence of	
an Essential Role for 24-Ethylsterol in Plant Cell Division	
Penny A. Haughan, John R. Lenton, and L. John Goad	510
The Potentiating Effects of Phorbol Ester on ACTH-, Cholera Toxin-, and Forskolin-	
Induced cAMP Production by Cultured Bovine Adrenal Cells Is Not Mediated by the	
1 0 /	~ 1 /2
and Martine Begeot	517
Effect of Simultaneous Administration of β -Methasone and Triiodothyronine (T3) on the	
Development of Functional Pulmonary Maturation in Fetal Rabbit	
Uday Devaskar, John C. Church, Vijay Chechani, and Farouk Sadiq	524
Activation of Tyrosine Hydroxylase by Micromolar Concentrations of Calcium in	
Digitonin-Permeabilized Adrenal Medullary Cells	
Nobuyuki Yanagihara, Yasuhito Uezono, Yoshiro Koda,	
Akihiko Wada, and Futoshi Izumi	530
TPA Induces Subcellular Translocation and Subsequent Down-Regulation of Both Phorbol	550
Ester Binding and Protein Kinase C Activities in MCF-7 Cells	
	517
Jean-Marie Darbon, Florence Oury, Simone Clamens, and Francis Bayard	537
Characterization of the Molecular Forms of ANP Released by Perfused Neonatal Rat Heart	
Paul P. Shields and Christopher C. Glembotski	547
Specific Interaction of Vinculin with α -Actinin	
Daniel H. Wachsstock, James A. Wilkins, and Shin Lin	554
The Inhibitory Effect of Cyclic AMP on Phosphatidylinositol Kinase Is Not Mediated by the	
cAMP-Dependent Protein Kinase John J. O'Shea, Carlos A. Suárez-Quian,	
Richard A. Swank, and Richard D. Klausner	561

mi m r im Tr A included Add/Down-Household Designation and	
The Type I and Type II y-Aminobutyric Acid/Benzodiazepine Receptor. 1. Purification and Two-Dimensional Electrophoretic Analysis of the Receptor from Cortex and	
Cerebellum Thomas N. Sato and Joseph H. Neale 56	58
Transforming Growth Factor β Inhibits Leydig Cell Functions	
O. Avallet, M. Vigier, M. H. Perrard-Sapori, and J. M. Saez 57	15
Identification of a Human Platelet Membrane Protein Alkylated under Conditions	
Inhibitory of Phospholipase A ₂ Activity Susan T. Silk and Michael E. DeMarco 58	32
Prostaglandin Synthesis and Membrane Fatty Acid Composition in the Heart of Obese	
Zucker Rats Brigitte Escoubet, Geneviève Griffaton, Philippe Guesnet,	
Paul Lechat, and Marcelle Lavau 58	39
The Influence of the dT • dG Mispair on the Activity of the Human DNA	
(Cytosine-5)methyltransferase David J. Baker, Thomas A. Hardy,	
and Steven S. Smith 59) 6
Inhibition by Some Phenolic Antioxidants of Ca ²⁺ Uptake and Neurotransmitter Release	
from Brain Synaptosomes Franco Zoccarato, Mariella Pandolfo,	
Renzo Deana, and Adolfo Alexandre 60) 3
Altered Conformation of GC (Vitamin D-Binding Protein) upon Complexing with Cellular	
Actin Pascal J. Goldschmidt-Clermont, Merfyn H. Williams,	
and Robert M. Galbraith 61	l I
Molecular Cloning and Sequence Analysis of Two Rat Major Globin cDNAs Hiroyuki Satoh, Hiroyuki Fujii, and Taro Okazaki 61	10
	10
Atrial Natriuretic Factor (ANF) Levels Are Elevated in Rats Bearing Rejecting Heart- Lung Allografts Craig E. Haug, Joseph I. Shapiro, Robert L. Cosby,	
Lung Allografts Craig E. Haug, Joseph I. Shapiro, Robert L. Cosby, Laurence Chan, and Richard Weil III 62	25
Calcium-Activated Neutral Protease Inhibitor from Rabbit Erythrocytes Lacks the N-	23
Terminal Region of the Liver Inhibitor but Retains Three Inhibitory Units	
Shinobu Imajoh, Hiroshi Kawasaki, Yasufumi Emori, and Koichi Suzuki 63	30
A Novel Pool of Rat Liver Inositol and Ethanolamine Phospholipids Contains Epoxyeico-	
satrienoic Acids (EETs) Jorge H. Capdevila, Vijai Kishore, Elizabeth Dishman,	
	38
Periodate-Oxidized NADP ⁺ Is a Powerful Inhibitor of Human Placental Estradiol-17β	
Dehydrogenase G. Mendoza-Hernández, I. López-Solache,	
and J. C. Díaz-Zagoya 64	45
A Relationship between the Inhibition of Heparan Sulfate and Chondroitin Sulfate Synthesis	
and the Inhibition of Molting by Selenate in the Hemipteran Rhodnius prolixus	
Carl P. Dietrich, Helena B. Nader, Leny Toma,	
	52
Stimulations of Arachidonate Release and Inositol-1,4,5-triphosphate Formation Are	
Mediated by Distinct G Proteins in Human Platelets	5 0
	59
Human Myelin DM-20 Proteolipid Protein Deletion Defined by cDNA Sequence	22
	66
N-Terminal Amino Acid Sequence of Two Novel Tumor-Derived Adenylate Cyclase-	
Stimulating Proteins: Identification of Parathyroid Hormone-like and Parathyroid	
Hormone-unlike Domains Andrew F. Stewart, Terence Wu, Douglas Goumas, William J. Burtis, and Arthur E. Broadus 67	72
Activity of UDP-GlcNAc: α -Mannoside $\beta(1,6)N$ -Acetylglucosaminyltransferase (GnT V)	, 2
in Cultured Cells Using a Synthetic Trisaccharide Acceptor	
	79
β-Adrenergic Agonist- and Prostaglandin-Mediated Regulation of cAMP Levels in Ewing's	-
Sarcoma Cells in Culture F. van Valen, H. Jürgens, W. Winkelmann,	
and E. Keck 68	85
Differences in the Action of Avermectin B _{1a} on the GABA _A Receptor Complex of Mouse and	
Rat David M. Soderlund, Pamela M. Adams, and Jeffrey R. Bloomquist 69	92

Expression of the c-myc Gene in Human Gastromitestinal Manghancies	
Kazuhiko Tsuboi, Kazunori Hirayoshi, Kaoru Takeuchi, Hisataka Sabe,	
Yutaka Shimada, Gakuji Ohshio, Takayoshi Tobe,	
and Masakazu Hatanaka	699
In Vitro Mutated β Subunits from the F ₁ -ATPase of the Thermophilic Bacterium PS3,	
Containing Glutamine in Place of Glutamic Acid in Positions 190 or 201, Assembles	
with the α and γ Subunits to Produce Inactive Complexes	
Michihiro Ohtsubo, Masasuke Yoshida, Shigeo Ohta,	
	705
Yasuo Kagawa, Masafumi Yohda, and Takayasu Date	705
Comparison of the Microtubule Formation Induced by Cytosynalin and MAPs	
Kazuyuki Itoh and Kenji Sobue	711
Production of Monoclonal Antibodies to the Rat Insulin-like Growth Factor II (IGF-II)	
Receptor R. G. Rosenfeld and H. Pham	717
The Human Chromosomal Protein HMG I Contains Two Identical Palindrome Amino Acid	
Sequences Terje Lund, Knut H. Dahl, Einar Mørk, Jostein Holtlund,	
and Søren G. Laland	725
Degradation of a cAMP-Binding Protein Is Inhibited by Human c-Ha-ras Gene Products	, 23
Takaki Hiwasa, Shigeru Sakiyama, Shigeru Noguchi, Jong-Myung Ha,	
Tana Mineran and Shine I had said	721
Tatsuo Miyazawa, and Shigeyuki Yokoyama	731
Epidermal Growth Factor Partially Reverses the Inhibitory Effects of Antiestrogens on T	
47D Human Breast Cancer Cell Growth	
Masafumi Koga and Robert L. Sutherland	739
Isolation and Primary Structure of the Eclosion Hormone of the Tobacco Hornworm,	
Manduca sexta Hiroshi Kataoka, Ruth G. Troetschler, Steven J. Kramer,	
Blake J. Cesarin, and David A. Schooley	746
Modulated Expression of Human Homeobox Genes in Differentiating Intestinal Cells	740
G. Sebastio, M. D'Esposito, M. Montanucci, A. Simeone,	
	751
S. Auricchio, and E. Boncinelli	751
Effects of Human Atrial Natriuretic Polypeptide on Pancreatic Exocrine Secretion in the	
Dog Hisao Oguchi, Kazuhiko Iwatsuki, Akira Horiuchi,	
Seiichi Furuta, and Shigetoshi Chiba	757
Partial Structure of an Insulin-Sensitive Glycophospholipid	
Jose M. Mato, Kathleen L. Kelly, Andrew Abler, Leonard Jarett,	
Barbara E. Corkey, Jo Anne Cashel, and David Zopf	764
Acidic Heparin Binding Growth Factor Transiently Activates Adenylate Cyclase Activity in	
Human Adult Arterial Smooth Muscle Cells Hiroyuki Mioh and Jan-Kan Chen	771
12-O-Tetradecanoylphorbol-13-acetate Induces an Immediate, but Transient, Increase in	
Mitotic Activity Uncoupled with DNA Synthesis in the Monolayer Cultures of Rat	
Keratinocyte Hee-Joong Kim and Isadore A. Bernstein	777
Analysis of Promoters of Adenovirus Type 12 E1A Gene in a Cell-Free Transcription	111
System Yoshinobu Nakanishi, Hitomi Shibata, Tetsu Hase,	=
and Yukito Masamune	783
In Vitro Study of the Binding of Terbium to Tryptophan by ¹ H-NMR and Fluorescence	
Spectroscopy Katsuo Aizawa, Susumu Ohhata, Hiroshi Nishie, Akira Ohsaka,	
Kenzo Kato, Kazuhiro Matsushita, and Katsuya Hioka	791
Loss of Nerve Growth Factor Receptors in Sympathetic Ganglia from Aged Mice	
Yoko Uchida and Masanori Tomonaga	797
Induction of Acetylated Low Density Lipoprotein Receptor and Suppression of Low	- /
Density Lipoprotein Receptor on the Cells of Human Monocytic Leukemia Cell Line	
(THP-1 Cell) Hitoshi Hara, Hitoshi Tanishita, Shinji Yokoyama,	
Shoji Tajima, and Akira Yamamoto	802
Translational Regulation of the Expression of Zein Cloned in Yeast under an Inducible GAL	002
	000
A. Viotti, and E. Martegani	809

Nonenzymatic Formation of Insurin-Guitatnione Mixed Distinces: Evidence for a	
Transient Species by Plasma Desorption Mass Spectrometry	
Mehrshid Alai and Catherine Fenselau	815
Neomycin Is a Potent Agent for Arachidonic Acid Release in Human Platelets	
Shigeru Nakashima, Toyohiko Tohmatsu, Lisa Shirato,	
Atsuko Takenaka, and Yoshinori Nozawa	820
Demonstration of Tubulin-Glycolytic Enzyme Interactions Using a Novel Electrophoretic	
Approach RoxAnn Karkhoff-Schweizer and Harvey R. Knull	827
Amino Acid Sequence of Atrial Natriuretic Peptides in Human Coronary Sinus Plasma	
Tim Yandle, Ian Crozier, Gary Nicholls, Eric Espiner, Alan Carne,	
and Stephen Brennan	832
Effect of Lysophosphatidylcholine on K ⁺ Transport in Rat Heavy Gastric Membranes	
Enriched with (H ⁺ -K ⁺)-ATPase W. B. Im, D. P. Blakeman, and J. P. Davis	840
In Vivo Depletion of Mannose Receptor Bearing Cells from Rat Liver by Ricin A Chain:	
Effects on Clearance of β -Glucuronidase	0.40
Barbara M. Simmons, Philip D. Stahl, and John H. Russell	849
Spasmogenic Effect of Platelet Activating Factor (PAF) on Isolated Rat Stomach Fundus	~~~
Strip Joseph V. Levy	855
Stimulation by GTP-Binding Proteins (Gi, Go) of Partially Purified Phospholipase C	
Activity from Human Platelet Membranes Yoshiko Banno, Seiji Nagao,	
Toshiaki Katada, Koh-ichi Nagata, Michio Ui, and Yoshinori Nozawa	861
Computer-Assisted Predictions of Signal Peptidase Processing Sites	
Rodney J. Folz and Jeffrey I. Gordon	870
Molecular Cloning and cDNA Structure of the Regulatory Subunit of Type I cAMP-	
Dependent Protein Kinase from Rat Brain Takayoshi Kuno, Yoshitaka Ono,	
Midori Hirai, Shinya Hashimoto, Hisato Shuntoh, and Chikako Tanaka	878
NH ₂ -Terminal of Gastrin-17 in Duodenal Ulcer Disease: Identification of Progastrin-17	
Piyush C. Kothary and Aaron I. Vinik	884
The Effect of Epidermal Growth Factor on Chronotropic Response in Cardiac Cells in	
Culture Simon W. Rabkin, Paul Sunga, and Sigrid Myrdal	889
A Pertussis/Cholera Toxin Sensitive G Protein May Mediate Vasopressin-Induced Inositol	
Phosphate Formation in Smooth Muscle Cell	
Yu-Ting Xuan, Ying-Fu Su, Kwen-Jen Chang, and W. David Watkins	898
Conformational Effect on the Fragmentations of Peptide Derivatives in Field Desorption	
Mass Spectrometry Hideaki Tsunematsu, Shizuko Hachiyama, Ryuichi Isobe,	
Eiji Ishida, Mayumi Kakoi, and Magobei Yamamoto	907
Isolation and Characterization of Three Forms of 36-kDa Ca ²⁺ -Dependent Actin- and	
Phospholipid-Binding Proteins from Human Placenta Membrane	
Hideki Hayashi, Seiji Sonobe, M. Koji Owada, and Takeo Kakunaga	912
Short-Term Control of the Pentose Phosphate Cycle by Insulin Could Be Modulated by the	
NADPH/NADP Ratio in Rat Adipocytes and Hepatocytes	000
Isabel Fabregat, Elisa Revilla, and Alberto Machado	920
ERRATUM	
Volume 142, Number 1, January 15, 1987: Pedro Cuevas, Shao-Yao Ying, Nicholas	
Ling, Naoto Ueno, Frederick Esch, and Roger Guillemin, "Immunohistochemical	
Detection of Inhibin in the Gonad," pp. 23–30.	926
Detection of fundin in the Gonza, pp. 23-30.	720
Volume 146, Number 3, August 14, 1987	
,	ii
AUTHOR INDEX, Volume 146, Number 3, August 14, 1987 The Induction of IFN-γ Production and m-RNAs of Interleukin 2 and IFN-γ by Phorbol	14
Esters and a Calcium Ionophore A. D. Croll, K. W. Siggins, A. G. Morris,	
and J. M. Pither	927
una v. 12. 1 mer	- - ·

The Amino-Terminal Sequence of the 85-90K Nonhormone Binding Component of the Molybdate-Stabilized Estradiol Receptor from Calf Uterus Thomas Ratajczak, Mark Comber, Robert Moir, Roland Hähnel, B. Grego,	
M. R. Rubira, and R. J. Simpson	218
Identification of 2-Benzimidazolyl Urea as a New Antimitotic Compound Based on Cross	
Resistance Studies with Nocodazole-Resistant Mutants of CHO Cells	
Impaired Cholesterol Esterification in Primary Brain Cultures of the Lysosomal Cholesterol Storage Disorder (LCSD) Mouse Mutant Radhey S. Gupta Shutish C. Patel,	225
Sundar Suresh, Hana Weintroub, Roscoe O. Brady, and Peter G. Pentchev	233
Triiodothyronine Decreases the Production of Androgen Binding Protein by Rat Sertoli Cells E. Fugassa, S. Palmero, and G. Gallo A Strong Homology Exists between the Active T-Cell Binding gp120 Octapeptide of	241
Human Immunodeficiency Virus and the Subtilisin Cleavage Peptide of Bovine	
Ribonuclease A Matthew R. Pincus, Robert P. Carty, James Chen, and Randall B. Murphy	248
Translocation of Protein Kinase C Is Not Required to Inhibit the Antigen-Induced Increase of Cytosolic Calcium in a Mast Cell Line	
Paul Erne, Nachman Mazurek, Christoph Borner, Jean-François Conscience, Urs Eppenberger, and Doriano Fabbro	252
Specific A·T DNA Sequence Binding of RP-HPLC Purified HMG-I	260
Terry S. Elton, Mark S. Nissen, and Raymond Reeves Interaction of the Thyrotropin Receptor on Rat FRTL-5 Thyroid Cells with Thyrotropin and	260
a Thyrotropin-Stimulating Autoantibody from Graves' Patients Luigi Bartalena, Gianfranco Fenzi, Paolo Vitti, Donatella Tombaccini,	
Alessandro Antonelli, Enrico Macchia, Luca Chiovato,	
Leonard D. Kohn, and Aldo Pinchera	266
Relaxin from an Oviparous Species, the Skate (Raja erinacea)	
E. E. Büllesbach, C. Schwabe, and I. P. Callard	
E. E. Buttesbuch, C. Schwabe, and I. I. Catalia	273
Identification of Polypeptides of Photosystem I Reaction Center as the Products of	273
Identification of Polypeptides of Photosystem I Reaction Center as the Products of Chloroplast Genes PS1A1 and PS1A2 Maurice M. Margulies	
Identification of Polypeptides of Photosystem I Reaction Center as the Products of Chloroplast Genes PS1A1 and PS1A2 Maurice M. Margulies and H. Lee Tiffany	273281
Identification of Polypeptides of Photosystem I Reaction Center as the Products of Chloroplast Genes PS1A1 and PS1A2 Maurice M. Margulies and H. Lee Tiffany Expression of Human Atrial Natriuretic Polypeptide Gene in Cos 7 Cells	
Identification of Polypeptides of Photosystem I Reaction Center as the Products of Chloroplast Genes PS1A1 and PS1A2 Maurice M. Margulies and H. Lee Tiffany Expression of Human Atrial Natriuretic Polypeptide Gene in Cos 7 Cells Naoharu Iwai, Masato Matsunaga, Kazuya Ogawa, Akira Matsumori, Haruyoshi Yoshida, Etsuko Ohta, and Chuichi Kawai	
Identification of Polypeptides of Photosystem I Reaction Center as the Products of Chloroplast Genes PS1A1 and PS1A2 Maurice M. Margulies and H. Lee Tiffany Expression of Human Atrial Natriuretic Polypeptide Gene in Cos 7 Cells Naoharu Iwai, Masato Matsunaga, Kazuya Ogawa, Akira Matsumori, Haruyoshi Yoshida, Etsuko Ohta, and Chuichi Kawai Inhibition of Mitochondrial NADH-Ubiquinone Oxidoreductase Activity by 1-Methyl-4-	281
Identification of Polypeptides of Photosystem I Reaction Center as the Products of Chloroplast Genes PS1A1 and PS1A2 Maurice M. Margulies and H. Lee Tiffany Expression of Human Atrial Natriuretic Polypeptide Gene in Cos 7 Cells Naoharu Iwai, Masato Matsunaga, Kazuya Ogawa, Akira Matsumori, Haruyoshi Yoshida, Etsuko Ohta, and Chuichi Kawai Inhibition of Mitochondrial NADH-Ubiquinone Oxidoreductase Activity by 1-Methyl-4-phenylpyridinium Ion Yoshikuni Mizuno, Tomohiko Saitoh, and Nobuhito Sone	281
Identification of Polypeptides of Photosystem I Reaction Center as the Products of Chloroplast Genes PS1A1 and PS1A2 Maurice M. Margulies and H. Lee Tiffany Expression of Human Atrial Natriuretic Polypeptide Gene in Cos 7 Cells Naoharu Iwai, Masato Matsunaga, Kazuya Ogawa, Akira Matsumori, Haruyoshi Yoshida, Etsuko Ohta, and Chuichi Kawai Inhibition of Mitochondrial NADH-Ubiquinone Oxidoreductase Activity by 1-Methyl-4- phenylpyridinium Ion Yoshikuni Mizuno, Tomohiko Saitoh, and Nobuhito Sone Repetitive Region of Calpastatin Is a Functional Unit of the Proteinase Inhibitor	281 288
Identification of Polypeptides of Photosystem I Reaction Center as the Products of Chloroplast Genes PS1A1 and PS1A2 Maurice M. Margulies and H. Lee Tiffany Expression of Human Atrial Natriuretic Polypeptide Gene in Cos 7 Cells Naoharu Iwai, Masato Matsunaga, Kazuya Ogawa, Akira Matsumori, Haruyoshi Yoshida, Etsuko Ohta, and Chuichi Kawai Inhibition of Mitochondrial NADH-Ubiquinone Oxidoreductase Activity by 1-Methyl-4- phenylpyridinium Ion Yoshikuni Mizuno, Tomohiko Saitoh, and Nobuhito Sone Repetitive Region of Calpastatin Is a Functional Unit of the Proteinase Inhibitor Masatoshi Maki, Emiko Takano, Hirotaka Mori, Reiji Kannagi,	281 288 294
Identification of Polypeptides of Photosystem I Reaction Center as the Products of Chloroplast Genes PS1A1 and PS1A2 Maurice M. Margulies and H. Lee Tiffany Expression of Human Atrial Natriuretic Polypeptide Gene in Cos 7 Cells Naoharu Iwai, Masato Matsunaga, Kazuya Ogawa, Akira Matsumori, Haruyoshi Yoshida, Etsuko Ohta, and Chuichi Kawai Inhibition of Mitochondrial NADH-Ubiquinone Oxidoreductase Activity by 1-Methyl-4-phenylpyridinium Ion Yoshikuni Mizuno, Tomohiko Saitoh, and Nobuhito Sone Repetitive Region of Calpastatin Is a Functional Unit of the Proteinase Inhibitor Masatoshi Maki, Emiko Takano, Hirotaka Mori, Reiji Kannagi, Takashi Murachi, and Masakazu Hatanaka	281 288
Identification of Polypeptides of Photosystem I Reaction Center as the Products of Chloroplast Genes PS1A1 and PS1A2 Expression of Human Atrial Natriuretic Polypeptide Gene in Cos 7 Cells Naoharu Iwai, Masato Matsunaga, Kazuya Ogawa, Akira Matsumori, Haruyoshi Yoshida, Etsuko Ohta, and Chuichi Kawai Inhibition of Mitochondrial NADH-Ubiquinone Oxidoreductase Activity by 1-Methyl-4-phenylpyridinium Ion Yoshikuni Mizuno, Tomohiko Saitoh, and Nobuhito Sone Repetitive Region of Calpastatin Is a Functional Unit of the Proteinase Inhibitor Masatoshi Maki, Emiko Takano, Hirotaka Mori, Reiji Kannagi, Takashi Murachi, and Masakazu Hatanaka 13-cis-Retinal Stimulates Proliferation and Induces Intranuclear Protein Accumulation in	281 288 294
Identification of Polypeptides of Photosystem I Reaction Center as the Products of Chloroplast Genes PS1A1 and PS1A2 Expression of Human Atrial Natriuretic Polypeptide Gene in Cos 7 Cells Naoharu Iwai, Masato Matsunaga, Kazuya Ogawa, Akira Matsumori, Haruyoshi Yoshida, Etsuko Ohta, and Chuichi Kawai Inhibition of Mitochondrial NADH-Ubiquinone Oxidoreductase Activity by 1-Methyl-4-phenylpyridinium Ion Yoshikuni Mizuno, Tomohiko Saitoh, and Nobuhito Sone Repetitive Region of Calpastatin Is a Functional Unit of the Proteinase Inhibitor Masatoshi Maki, Emiko Takano, Hirotaka Mori, Reiji Kannagi, Takashi Murachi, and Masakazu Hatanaka 13-cis-Retinal Stimulates Proliferation and Induces Intranuclear Protein Accumulation in the Human Mammary Tumor Cells MCF-7 Mariana Resnicoff and Estela E. Medrano	281 288 294
Identification of Polypeptides of Photosystem I Reaction Center as the Products of Chloroplast Genes PS1A1 and PS1A2 Expression of Human Atrial Natriuretic Polypeptide Gene in Cos 7 Cells Naoharu Iwai, Masato Matsunaga, Kazuya Ogawa, Akira Matsumori, Haruyoshi Yoshida, Etsuko Ohta, and Chuichi Kawai Inhibition of Mitochondrial NADH-Ubiquinone Oxidoreductase Activity by 1-Methyl-4-phenylpyridinium Ion Yoshikuni Mizuno, Tomohiko Saitoh, and Nobuhito Sone Repetitive Region of Calpastatin Is a Functional Unit of the Proteinase Inhibitor Masatoshi Maki, Emiko Takano, Hirotaka Mori, Reiji Kannagi, Takashi Murachi, and Masakazu Hatanaka 13-cis-Retinal Stimulates Proliferation and Induces Intranuclear Protein Accumulation in the Human Mammary Tumor Cells MCF-7 Mariana Resnicoff and Estela E. Medrano Atrial Natriuretic Polypeptide (ANP) in the Development of Spontaneously Hypertensive	281 288 294 300
Identification of Polypeptides of Photosystem I Reaction Center as the Products of Chloroplast Genes PS1A1 and PS1A2 Expression of Human Atrial Natriuretic Polypeptide Gene in Cos 7 Cells Naoharu Iwai, Masato Matsunaga, Kazuya Ogawa, Akira Matsumori, Haruyoshi Yoshida, Etsuko Ohta, and Chuichi Kawai Inhibition of Mitochondrial NADH-Ubiquinone Oxidoreductase Activity by 1-Methyl-4-phenylpyridinium Ion Yoshikuni Mizuno, Tomohiko Saitoh, and Nobuhito Sone Repetitive Region of Calpastatin Is a Functional Unit of the Proteinase Inhibitor Masatoshi Maki, Emiko Takano, Hirotaka Mori, Reiji Kannagi, Takashi Murachi, and Masakazu Hatanaka 13-cis-Retinal Stimulates Proliferation and Induces Intranuclear Protein Accumulation in the Human Mammary Tumor Cells MCF-7 Mariana Resnicoff and Estela E. Medrano Atrial Natriuretic Polypeptide (ANP) in the Development of Spontaneously Hypertensive Rats (SHR) and Stroke-Prone SHR (SHRSP) Johji Kato, Osamu Kida,	281 288 294 300 309
Identification of Polypeptides of Photosystem I Reaction Center as the Products of Chloroplast Genes PS1A1 and PS1A2 Expression of Human Atrial Natriuretic Polypeptide Gene in Cos 7 Cells Naoharu Iwai, Masato Matsunaga, Kazuya Ogawa, Akira Matsumori, Haruyoshi Yoshida, Etsuko Ohta, and Chuichi Kawai Inhibition of Mitochondrial NADH-Ubiquinone Oxidoreductase Activity by 1-Methyl-4-phenylpyridinium Ion Yoshikuni Mizuno, Tomohiko Saitoh, and Nobuhito Sone Repetitive Region of Calpastatin Is a Functional Unit of the Proteinase Inhibitor Masatoshi Maki, Emiko Takano, Hirotaka Mori, Reiji Kannagi, Takashi Murachi, and Masakazu Hatanaka 13-cis-Retinal Stimulates Proliferation and Induces Intranuclear Protein Accumulation in the Human Mammary Tumor Cells MCF-7 Mariana Resnicoff and Estela E. Medrano Atrial Natriuretic Polypeptide (ANP) in the Development of Spontaneously Hypertensive Rats (SHR) and Stroke-Prone SHR (SHRSP) Johji Kato, Osamu Kida, Shigeru Nakamura, Akira Sasaki, Kenji Kodama, and Kenjiro Tanaka	281 288 294 300
Identification of Polypeptides of Photosystem I Reaction Center as the Products of Chloroplast Genes PS1A1 and PS1A2 Expression of Human Atrial Natriuretic Polypeptide Gene in Cos 7 Cells Naoharu Iwai, Masato Matsunaga, Kazuya Ogawa, Akira Matsumori, Haruyoshi Yoshida, Etsuko Ohta, and Chuichi Kawai Inhibition of Mitochondrial NADH-Ubiquinone Oxidoreductase Activity by 1-Methyl-4-phenylpyridinium Ion Yoshikuni Mizuno, Tomohiko Saitoh, and Nobuhito Sone Repetitive Region of Calpastatin Is a Functional Unit of the Proteinase Inhibitor Masatoshi Maki, Emiko Takano, Hirotaka Mori, Reiji Kannagi, Takashi Murachi, and Masakazu Hatanaka 13-cis-Retinal Stimulates Proliferation and Induces Intranuclear Protein Accumulation in the Human Mammary Tumor Cells MCF-7 Mariana Resnicoff and Estela E. Medrano Atrial Natriuretic Polypeptide (ANP) in the Development of Spontaneously Hypertensive Rats (SHR) and Stroke-Prone SHR (SHRSP) Johji Kato, Osamu Kida, Shigeru Nakamura, Akira Sasaki, Kenji Kodama, and Kenjiro Tanaka A Sensitive Colorimetric Detection of Virus DNA and Oncogene	288 294 300 309
Identification of Polypeptides of Photosystem I Reaction Center as the Products of Chloroplast Genes PS1A1 and PS1A2 Expression of Human Atrial Natriuretic Polypeptide Gene in Cos 7 Cells Naoharu Iwai, Masato Matsunaga, Kazuya Ogawa, Akira Matsumori, Haruyoshi Yoshida, Etsuko Ohta, and Chuichi Kawai Inhibition of Mitochondrial NADH-Ubiquinone Oxidoreductase Activity by 1-Methyl-4-phenylpyridinium Ion Yoshikuni Mizuno, Tomohiko Saitoh, and Nobuhito Sone Repetitive Region of Calpastatin Is a Functional Unit of the Proteinase Inhibitor Masatoshi Maki, Emiko Takano, Hirotaka Mori, Reiji Kannagi, Takashi Murachi, and Masakazu Hatanaka 13-cis-Retinal Stimulates Proliferation and Induces Intranuclear Protein Accumulation in the Human Mammary Tumor Cells MCF-7 Mariana Resnicoff and Estela E. Medrano Atrial Natriuretic Polypeptide (ANP) in the Development of Spontaneously Hypertensive Rats (SHR) and Stroke-Prone SHR (SHRSP) Johji Kato, Osamu Kida, Shigeru Nakamura, Akira Sasaki, Kenji Kodama, and Kenjiro Tanaka A Sensitive Colorimetric Detection of Virus DNA and Oncogene Hayao Inoue, Kenji Gushi, Shuji Matsuura, and Yoshitsugu Sakata	281 288 294 300 309
Identification of Polypeptides of Photosystem I Reaction Center as the Products of Chloroplast Genes PS1A1 and PS1A2 Expression of Human Atrial Natriuretic Polypeptide Gene in Cos 7 Cells Naoharu Iwai, Masato Matsunaga, Kazuya Ogawa, Akira Matsumori, Haruyoshi Yoshida, Etsuko Ohta, and Chuichi Kawai Inhibition of Mitochondrial NADH-Ubiquinone Oxidoreductase Activity by 1-Methyl-4-phenylpyridinium Ion Yoshikuni Mizuno, Tomohiko Saitoh, and Nobuhito Sone Repetitive Region of Calpastatin Is a Functional Unit of the Proteinase Inhibitor Masatoshi Maki, Emiko Takano, Hirotaka Mori, Reiji Kannagi, Takashi Murachi, and Masakazu Hatanaka 13-cis-Retinal Stimulates Proliferation and Induces Intranuclear Protein Accumulation in the Human Mammary Tumor Cells MCF-7 Mariana Resnicoff and Estela E. Medrano Atrial Natriuretic Polypeptide (ANP) in the Development of Spontaneously Hypertensive Rats (SHR) and Stroke-Prone SHR (SHRSP) Johji Kato, Osamu Kida, Shigeru Nakamura, Akira Sasaki, Kenji Kodama, and Kenjiro Tanaka A Sensitive Colorimetric Detection of Virus DNA and Oncogene	288 294 300 309
Identification of Polypeptides of Photosystem I Reaction Center as the Products of Chloroplast Genes PS1A1 and PS1A2 Maurice M. Margulies and H. Lee Tiffany Expression of Human Atrial Natriuretic Polypeptide Gene in Cos 7 Cells Naoharu Iwai, Masato Matsunaga, Kazuya Ogawa, Akira Matsumori, Haruyoshi Yoshida, Etsuko Ohta, and Chuichi Kawai Inhibition of Mitochondrial NADH-Ubiquinone Oxidoreductase Activity by 1-Methyl-4-phenylpyridinium Ion Yoshikuni Mizuno, Tomohiko Saitoh, and Nobuhito Sone Repetitive Region of Calpastatin Is a Functional Unit of the Proteinase Inhibitor Masatoshi Maki, Emiko Takano, Hirotaka Mori, Reiji Kannagi, Takashi Murachi, and Masakazu Hatanaka 13-cis-Retinal Stimulates Proliferation and Induces Intranuclear Protein Accumulation in the Human Mammary Tumor Cells MCF-7 Estela E. Medrano Atrial Natriuretic Polypeptide (ANP) in the Development of Spontaneously Hypertensive Rats (SHR) and Stroke-Prone SHR (SHRSP) Johji Kato, Osamu Kida, Shigeru Nakamura, Akira Sasaki, Kenji Kodama, and Kenjiro Tanaka A Sensitive Colorimetric Detection of Virus DNA and Oncogene Hayao Inoue, Kenji Gushi, Shuji Matsuura, and Yoshitsugu Sakata Dexamethasone Coordinately Inhibits Plasminogen Activator Gene Expression and Enzyme Activity in Porcine Kidney Cells David Pearson, Michael S. Altus, Atsuko Horiuchi, and Yoshikuni Nagamine	288 294 300 309
Identification of Polypeptides of Photosystem I Reaction Center as the Products of Chloroplast Genes PS1A1 and PS1A2 Maurice M. Margulies and H. Lee Tiffany Expression of Human Atrial Natriuretic Polypeptide Gene in Cos 7 Cells Naoharu Iwai, Masato Matsunaga, Kazuya Ogawa, Akira Matsumori, Haruyoshi Yoshida, Etsuko Ohta, and Chuichi Kawai Inhibition of Mitochondrial NADH-Ubiquinone Oxidoreductase Activity by 1-Methyl-4-phenylpyridinium Ion Yoshikuni Mizuno, Tomohiko Saitoh, and Nobuhito Sone Repetitive Region of Calpastatin Is a Functional Unit of the Proteinase Inhibitor Masatoshi Maki, Emiko Takano, Hirotaka Mori, Reiji Kannagi, Takashi Murachi, and Masakazu Hatanaka 13-cis-Retinal Stimulates Proliferation and Induces Intranuclear Protein Accumulation in the Human Mammary Tumor Cells MCF-7 Mariana Resnicoff and Estela E. Medrano Atrial Natriuretic Polypeptide (ANP) in the Development of Spontaneously Hypertensive Rats (SHR) and Stroke-Prone SHR (SHRSP) Johji Kato, Osamu Kida, Shigeru Nakamura, Akira Sasaki, Kenji Kodama, and Kenjiro Tanaka A Sensitive Colorimetric Detection of Virus DNA and Oncogene Hayao Inoue, Kenji Gushi, Shuji Matsuura, and Yoshitsugu Sakata Dexamethasone Coordinately Inhibits Plasminogen Activator Gene Expression and Enzyme Activity in Porcine Kidney Cells David Pearson, Michael S. Altus, Atsuko Horiuchi, and Yoshikuni Nagamine ω-Hydroxylation of N-Acetylleukotriene E4 by Rat Liver Microsomes Lars Örning cDNA Cloning of IL-1α and IL-1β from mRNA of U937 Cell Line	281 288 294 300 309 316 323
Identification of Polypeptides of Photosystem I Reaction Center as the Products of Chloroplast Genes PS1A1 and PS1A2 Maurice M. Margulies and H. Lee Tiffany Expression of Human Atrial Natriuretic Polypeptide Gene in Cos 7 Cells Naoharu Iwai, Masato Matsunaga, Kazuya Ogawa, Akira Matsumori, Haruyoshi Yoshida, Etsuko Ohta, and Chuichi Kawai Inhibition of Mitochondrial NADH-Ubiquinone Oxidoreductase Activity by 1-Methyl-4-phenylpyridinium Ion Yoshikuni Mizuno, Tomohiko Saitoh, and Nobuhito Sone Repetitive Region of Calpastatin Is a Functional Unit of the Proteinase Inhibitor Masatoshi Maki, Emiko Takano, Hirotaka Mori, Reiji Kannagi, Takashi Murachi, and Masakazu Hatanaka 13-cis-Retinal Stimulates Proliferation and Induces Intranuclear Protein Accumulation in the Human Mammary Tumor Cells MCF-7 Mariana Resnicoff and Estela E. Medrano Atrial Natriuretic Polypeptide (ANP) in the Development of Spontaneously Hypertensive Rats (SHR) and Stroke-Prone SHR (SHRSP) Johji Kato, Osamu Kida, Shigeru Nakamura, Akira Sasaki, Kenji Kodama, and Kenjiro Tanaka A Sensitive Colorimetric Detection of Virus DNA and Oncogene Hayao Inoue, Kenji Gushi, Shuji Matsuura, and Yoshitsugu Sakata Dexamethasone Coordinately Inhibits Plasminogen Activator Gene Expression and Enzyme Activity in Porcine Kidney Cells David Pearson, Michael S. Altus, Atsuko Horiuchi, and Yoshikuni Nagamine ω-Hydroxylation of N-Acetylleukotriene E4 by Rat Liver Microsomes Lars Örning	281 288 294 300 309 316 323

Inositol(3,4)bisphosphate and Inositol(1,3)bisphosphate in GH ₄ Cells: Evidence for Complex Breakdown of Inositol(1,3,4)trisphosphate	
R. F. Irvine, A. J. Letcher, D. J. Lander, J. P. Heslop, and M. J. Berridge The Catalytic Center of Lecithin: Cholesterol Acyltransferase: Isolation and Sequence of	353
Diisopropylfluorophosphate-Labeled Peptides Yong B. Park, K. Ümit Yüksel, Robert W. Gracy, and Andras G. Lacko	260
Specific Binding of Leukotriene B ₄ to Guinea Pig Lung Membranes	360
Maan Saad and Kenneth Wong	364
Cell Cycle-Dependent Potentiation of X-Ray-Induced Chromosomal Aberrations by 3-Aminobenzamide John K. Wiencke and William F. Morgan	372
Trans-stimulation and Driving Forces for GSH Transport in Sinusoidal Membrane Vesicles from Rat Liver Tak Yee Aw, Murad Ookhtens, John F. Kuhlenkamp,	
Two Potent Central Convulsant Peptides, a Bee Venom Toxin, the MCD Peptide, and a	377
Snake Venom Toxin, Dendrotoxin I, Known to Block K+ Channels, Have Interacting	
Receptor Sites Jean-Noël Bidard, Christiane Mourre, and Michel Lazdunski Tumor Necrosis Factor as an Interleukin 1-Dependent Differentiation Inducing Factor (D-Factor) for Mouse Myeloid Leukemic Cells	383
Takuya Tamatani, Hiroko Urawa, Tatsuichiro Hashimoto, and Kikuo Onozaki	390
Activation of Mineralocorticoid Agonist and Antagonist Specific Receptors from Rat Kidney M. K. Agarwal and M. Kalimi	200
Characterization of the Fusogenic Properties of Glyceraldehyde-3-phosphate Dehydro-	398
genase: Fusion of Phospholipid Vesicles Alberto E. López Vinals, Ricardo N. Farías, and Roberto D. Morero	403
•	
Volume 143, Number 2, March 13, 1987	
AUTHOR INDEX, Volume 143, Number 2, March 13, 1987	ii
0 10 77 1 1 0 1 71 1 7 7 1 0	**
Specific High-Affinity Binding Protein for Human Corticotropin-Releasing Hormone in Normal Human Plasma David N. Orth and Charles D. Mount	411
Normal Human Plasma David N. Orth and Charles D. Mount Retinol-Binding Protein in Human Serum: Conformational Changes Induced by Retinoic	411
Normal Human Plasma David N. Orth and Charles D. Mount Retinol-Binding Protein in Human Serum: Conformational Changes Induced by Retinoic Acid Binding Georges Siegenthaler and Jean-Hilaire Saurat Polyamine Administration Reduces Ornithine Decarboxylase Activity without Affecting Its	411 418
Normal Human Plasma David N. Orth and Charles D. Mount Retinol-Binding Protein in Human Serum: Conformational Changes Induced by Retinoic Acid Binding Georges Siegenthaler and Jean-Hilaire Saurat	411
Normal Human Plasma David N. Orth and Charles D. Mount Retinol-Binding Protein in Human Serum: Conformational Changes Induced by Retinoic Acid Binding Georges Siegenthaler and Jean-Hilaire Saurat Polyamine Administration Reduces Ornithine Decarboxylase Activity without Affecting Its mRNA Content Gary J. Sertich and Anthony E. Pegg Human Liver Type Pyruvate Kinase: cDNA Cloning and Chromosomal Assignment Kenzaburo Tani, Hisaichi Fujii, Hisashi Tsutsumi,	411 418
Normal Human Plasma David N. Orth and Charles D. Mount Retinol-Binding Protein in Human Serum: Conformational Changes Induced by Retinoic Acid Binding Georges Siegenthaler and Jean-Hilaire Saurat Polyamine Administration Reduces Ornithine Decarboxylase Activity without Affecting Its mRNA Content Gary J. Sertich and Anthony E. Pegg Human Liver Type Pyruvate Kinase: cDNA Cloning and Chromosomal Assignment Kenzaburo Tani, Hisaichi Fujii, Hisashi Tsutsumi, Jun Sukegawa, Kumao Toyoshima, Michihiro C. Yoshida, Tamio Noguchi, Takehiko	411 418 424
Normal Human Plasma David N. Orth and Charles D. Mount Retinol-Binding Protein in Human Serum: Conformational Changes Induced by Retinoic Acid Binding Georges Siegenthaler and Jean-Hilaire Saurat Polyamine Administration Reduces Ornithine Decarboxylase Activity without Affecting Its mRNA Content Gary J. Sertich and Anthony E. Pegg Human Liver Type Pyruvate Kinase: cDNA Cloning and Chromosomal Assignment Kenzaburo Tani, Hisaichi Fujii, Hisashi Tsutsumi, Jun Sukegawa, Kumao Toyoshima, Michihiro C. Yoshida, Tamio Noguchi, Takehiko Tanaka, and Shiro Miwa Nonenzymatic Synthesis of δ-Aminolevulinate (ALA) by Cobalt (CO ²⁺)	411 418 424 431
Normal Human Plasma David N. Orth and Charles D. Mount Retinol-Binding Protein in Human Serum: Conformational Changes Induced by Retinoic Acid Binding Georges Siegenthaler and Jean-Hilaire Saurat Polyamine Administration Reduces Ornithine Decarboxylase Activity without Affecting Its mRNA Content Gary J. Sertich and Anthony E. Pegg Human Liver Type Pyruvate Kinase: cDNA Cloning and Chromosomal Assignment Kenzaburo Tani, Hisaichi Fujii, Hisashi Tsutsumi, Jun Sukegawa, Kumao Toyoshima, Michihiro C. Yoshida, Tamio Noguchi, Takehiko Tanaka, and Shiro Miwa Nonenzymatic Synthesis of δ-Aminolevulinate (ALA) by Cobalt (CO ²⁺) Nishi K. Singh, Rashmi Chhabra, and Kasturi Datta	411 418 424
Normal Human Plasma David N. Orth and Charles D. Mount Retinol-Binding Protein in Human Serum: Conformational Changes Induced by Retinoic Acid Binding Georges Siegenthaler and Jean-Hilaire Saurat Polyamine Administration Reduces Ornithine Decarboxylase Activity without Affecting Its mRNA Content Gary J. Sertich and Anthony E. Pegg Human Liver Type Pyruvate Kinase: cDNA Cloning and Chromosomal Assignment Kenzaburo Tani, Hisaichi Fujii, Hisashi Tsutsumi, Jun Sukegawa, Kumao Toyoshima, Michihiro C. Yoshida, Tamio Noguchi, Takehiko Tanaka, and Shiro Miwa Nonenzymatic Synthesis of δ-Aminolevulinate (ALA) by Cobalt (CO ²⁺) Nishi K. Singh, Rashmi Chhabra, and Kasturi Datta Methylation of the α-Fetoprotein Gene in Isogenic Rat Hepatoma and Liver Cell Lines	411 418 424 431 439
Normal Human Plasma David N. Orth and Charles D. Mount Retinol-Binding Protein in Human Serum: Conformational Changes Induced by Retinoic Acid Binding Georges Siegenthaler and Jean-Hilaire Saurat Polyamine Administration Reduces Ornithine Decarboxylase Activity without Affecting Its mRNA Content Gary J. Sertich and Anthony E. Pegg Human Liver Type Pyruvate Kinase: cDNA Cloning and Chromosomal Assignment Kenzaburo Tani, Hisaichi Fujii, Hisashi Tsutsumi, Jun Sukegawa, Kumao Toyoshima, Michihiro C. Yoshida, Tamio Noguchi, Takehiko Tanaka, and Shiro Miwa Nonenzymatic Synthesis of δ-Aminolevulinate (ALA) by Cobalt (CO ²⁺) Nishi K. Singh, Rashmi Chhabra, and Kasturi Datta Methylation of the α-Fetoprotein Gene in Isogenic Rat Hepatoma and Liver Cell Lines Keiko Sakuma, Jeffry R. Cook, Catharine L. Smith, and Jen-Fu Chiu	411 418 424 431
Normal Human Plasma David N. Orth and Charles D. Mount Retinol-Binding Protein in Human Serum: Conformational Changes Induced by Retinoic Acid Binding Georges Siegenthaler and Jean-Hilaire Saurat Polyamine Administration Reduces Ornithine Decarboxylase Activity without Affecting Its mRNA Content Gary J. Sertich and Anthony E. Pegg Human Liver Type Pyruvate Kinase: cDNA Cloning and Chromosomal Assignment Kenzaburo Tani, Hisaichi Fujii, Hisashi Tsutsumi, Jun Sukegawa, Kumao Toyoshima, Michihiro C. Yoshida, Tamio Noguchi, Takehiko Tanaka, and Shiro Miwa Nonenzymatic Synthesis of δ-Aminolevulinate (ALA) by Cobalt (CO ²⁺) Nishi K. Singh, Rashmi Chhabra, and Kasturi Datta Methylation of the α-Fetoprotein Gene in Isogenic Rat Hepatoma and Liver Cell Lines Keiko Sakuma, Jeffry R. Cook, Catharine L. Smith, and Jen-Fu Chiu ATP Stimulates Inositol Phosphate Accumulation and Calcium Mobilization in a Primary Culture of Rat Aortic Myocytes Sylvain Phaneuf, Philippe Berta,	411 418 424 431 439
Normal Human Plasma David N. Orth and Charles D. Mount Retinol-Binding Protein in Human Serum: Conformational Changes Induced by Retinoic Acid Binding Georges Siegenthaler and Jean-Hilaire Saurat Polyamine Administration Reduces Ornithine Decarboxylase Activity without Affecting Its mRNA Content Gary J. Sertich and Anthony E. Pegg Human Liver Type Pyruvate Kinase: cDNA Cloning and Chromosomal Assignment Kenzaburo Tani, Hisaichi Fujii, Hisashi Tsutsumi, Jun Sukegawa, Kumao Toyoshima, Michihiro C. Yoshida, Tamio Noguchi, Takehiko Tanaka, and Shiro Miwa Nonenzymatic Synthesis of δ-Aminolevulinate (ALA) by Cobalt (CO ²⁺) Nishi K. Singh, Rashmi Chhabra, and Kasturi Datta Methylation of the α-Fetoprotein Gene in Isogenic Rat Hepatoma and Liver Cell Lines Keiko Sakuma, Jeffry R. Cook, Catharine L. Smith, and Jen-Fu Chiu ATP Stimulates Inositol Phosphate Accumulation and Calcium Mobilization in a Primary Culture of Rat Aortic Myocytes Sylvain Phaneuf, Philippe Berta, Jean Casanova, and Jean-Claude Cavadore	411 418 424 431 439
Normal Human Plasma David N. Orth and Charles D. Mount Retinol-Binding Protein in Human Serum: Conformational Changes Induced by Retinoic Acid Binding Georges Siegenthaler and Jean-Hilaire Saurat Polyamine Administration Reduces Ornithine Decarboxylase Activity without Affecting Its mRNA Content Gary J. Sertich and Anthony E. Pegg Human Liver Type Pyruvate Kinase: cDNA Cloning and Chromosomal Assignment Kenzaburo Tani, Hisaichi Fujii, Hisashi Tsutsumi, Jun Sukegawa, Kumao Toyoshima, Michihiro C. Yoshida, Tamio Noguchi, Takehiko Tanaka, and Shiro Miwa Nonenzymatic Synthesis of δ-Aminolevulinate (ALA) by Cobalt (CO ²⁺) Nishi K. Singh, Rashmi Chhabra, and Kasturi Datta Methylation of the α-Fetoprotein Gene in Isogenic Rat Hepatoma and Liver Cell Lines Keiko Sakuma, Jeffry R. Cook, Catharine L. Smith, and Jen-Fu Chiu ATP Stimulates Inositol Phosphate Accumulation and Calcium Mobilization in a Primary Culture of Rat Aortic Myocytes Sylvain Phaneuf, Philippe Berta, Jean Casanova, and Jean-Claude Cavadore P. falciparum Invasion of Human Red Cells and Cytoadherence to Endothelial Cells Is	411 418 424 431 439 447
Normal Human Plasma David N. Orth and Charles D. Mount Retinol-Binding Protein in Human Serum: Conformational Changes Induced by Retinoic Acid Binding Georges Siegenthaler and Jean-Hilaire Saurat Polyamine Administration Reduces Ornithine Decarboxylase Activity without Affecting Its mRNA Content Gary J. Sertich and Anthony E. Pegg Human Liver Type Pyruvate Kinase: cDNA Cloning and Chromosomal Assignment Kenzaburo Tani, Hisaichi Fujii, Hisashi Tsutsumi, Jun Sukegawa, Kumao Toyoshima, Michihiro C. Yoshida, Tamio Noguchi, Takehiko Tanaka, and Shiro Miwa Nonenzymatic Synthesis of δ-Aminolevulinate (ALA) by Cobalt (CO ²⁺) Nishi K. Singh, Rashmi Chhabra, and Kasturi Datta Methylation of the α-Fetoprotein Gene in Isogenic Rat Hepatoma and Liver Cell Lines Keiko Sakuma, Jeffry R. Cook, Catharine L. Smith, and Jen-Fu Chiu ATP Stimulates Inositol Phosphate Accumulation and Calcium Mobilization in a Primary Culture of Rat Aortic Myocytes Sylvain Phaneuf, Philippe Berta, Jean Casanova, and Jean-Claude Cavadore P. falciparum Invasion of Human Red Cells and Cytoadherence to Endothelial Cells Is Dependent upon a Parasite-Produced Glycosidase Michael T. Makler Differential Calcium Effects on Prostaglandin D₂ Generation and Histamine Release from	411 418 424 431 439 447
Normal Human Plasma David N. Orth and Charles D. Mount Retinol-Binding Protein in Human Serum: Conformational Changes Induced by Retinoic Acid Binding Georges Siegenthaler and Jean-Hilaire Saurat Polyamine Administration Reduces Ornithine Decarboxylase Activity without Affecting Its mRNA Content Gary J. Sertich and Anthony E. Pegg Human Liver Type Pyruvate Kinase: cDNA Cloning and Chromosomal Assignment Kenzaburo Tani, Hisaichi Fujii, Hisashi Tsutsumi, Jun Sukegawa, Kumao Toyoshima, Michihiro C. Yoshida, Tamio Noguchi, Takehiko Tanaka, and Shiro Miwa Nonenzymatic Synthesis of δ-Aminolevulinate (ALA) by Cobalt (CO ²⁺) Nishi K. Singh, Rashmi Chhabra, and Kasturi Datta Methylation of the α-Fetoprotein Gene in Isogenic Rat Hepatoma and Liver Cell Lines Keiko Sakuma, Jeffry R. Cook, Catharine L. Smith, and Jen-Fu Chiu ATP Stimulates Inositol Phosphate Accumulation and Calcium Mobilization in a Primary Culture of Rat Aortic Myocytes Sylvain Phaneuf, Philippe Berta, Jean Casanova, and Jean-Claude Cavadore P. falciparum Invasion of Human Red Cells and Cytoadherence to Endothelial Cells Is Dependent upon a Parasite-Produced Glycosidase Michael T. Makler Differential Calcium Effects on Prostaglandin D₂ Generation and Histamine Release from Isolated Rat Peritoneal Mast Cells Hideo Kawabe, Hideya Hayashi, and Osamu Hayaishi	411 418 424 431 439 447
Normal Human Plasma David N. Orth and Charles D. Mount Retinol-Binding Protein in Human Serum: Conformational Changes Induced by Retinoic Acid Binding Georges Siegenthaler and Jean-Hilaire Saurat Polyamine Administration Reduces Ornithine Decarboxylase Activity without Affecting Its mRNA Content Gary J. Sertich and Anthony E. Pegg Human Liver Type Pyruvate Kinase: cDNA Cloning and Chromosomal Assignment Kenzaburo Tani, Hisaichi Fujii, Hisashi Tsutsumi, Jun Sukegawa, Kumao Toyoshima, Michihiro C. Yoshida, Tamio Noguchi, Takehiko Tanaka, and Shiro Miwa Nonenzymatic Synthesis of δ-Aminolevulinate (ALA) by Cobalt (CO²+) Nishi K. Singh, Rashmi Chhabra, and Kasturi Datta Methylation of the α-Fetoprotein Gene in Isogenic Rat Hepatoma and Liver Cell Lines Keiko Sakuma, Jeffry R. Cook, Catharine L. Smith, and Jen-Fu Chiu ATP Stimulates Inositol Phosphate Accumulation and Calcium Mobilization in a Primary Culture of Rat Aortic Myocytes Sylvain Phaneuf, Philippe Berta, Jean Casanova, and Jean-Claude Cavadore P. falciparum Invasion of Human Red Cells and Cytoadherence to Endothelial Cells Is Dependent upon a Parasite-Produced Glycosidase Michael T. Makler Differential Calcium Effects on Prostaglandin D₂ Generation and Histamine Release from Isolated Rat Peritoneal Mast Cells Hideo Kawabe, Hideya Hayashi, and Osamu Hayaishi Caldesmon Specifically Inhibits the Effect of Tropomyosin on Actomyosin System in	411 418 424 431 439 447 454 461
Normal Human Plasma David N. Orth and Charles D. Mount Retinol-Binding Protein in Human Serum: Conformational Changes Induced by Retinoic Acid Binding Georges Siegenthaler and Jean-Hilaire Saurat Polyamine Administration Reduces Ornithine Decarboxylase Activity without Affecting Its mRNA Content Gary J. Sertich and Anthony E. Pegg Human Liver Type Pyruvate Kinase: cDNA Cloning and Chromosomal Assignment Kenzaburo Tani, Hisaichi Fujii, Hisashi Tsutsumi, Jun Sukegawa, Kumao Toyoshima, Michihiro C. Yoshida, Tamio Noguchi, Takehiko Tanaka, and Shiro Miwa Nonenzymatic Synthesis of δ-Aminolevulinate (ALA) by Cobalt (CO ²⁺) Nishi K. Singh, Rashmi Chhabra, and Kasturi Datta Methylation of the α-Fetoprotein Gene in Isogenic Rat Hepatoma and Liver Cell Lines Keiko Sakuma, Jeffry R. Cook, Catharine L. Smith, and Jen-Fu Chiu ATP Stimulates Inositol Phosphate Accumulation and Calcium Mobilization in a Primary Culture of Rat Aortic Myocytes Sylvain Phaneuf, Philippe Berta, Jean Casanova, and Jean-Claude Cavadore P. falciparum Invasion of Human Red Cells and Cytoadherence to Endothelial Cells Is Dependent upon a Parasite-Produced Glycosidase Michael T. Makler Differential Calcium Effects on Prostaglandin D₂ Generation and Histamine Release from Isolated Rat Peritoneal Mast Cells Hideo Kawabe, Hideya Hayashi, and Osamu Hayaishi Caldesmon Specifically Inhibits the Effect of Tropomyosin on Actomyosin System in Platelets Toyoshi Onji, Michiko Takagi, and Nobuhiko Shibata L-Threo-3,4-dihydroxyphenylserine (DOPS) Aldolase: A New Enzyme Cleaving DOPS into	411 418 424 431 439 447 454 461
Normal Human Plasma David N. Orth and Charles D. Mount Retinol-Binding Protein in Human Serum: Conformational Changes Induced by Retinoic Acid Binding Georges Siegenthaler and Jean-Hilaire Saurat Polyamine Administration Reduces Ornithine Decarboxylase Activity without Affecting Its mRNA Content Gary J. Sertich and Anthony E. Pegg Human Liver Type Pyruvate Kinase: cDNA Cloning and Chromosomal Assignment Kenzaburo Tani, Hisaichi Fujii, Hisashi Tsutsumi, Jun Sukegawa, Kumao Toyoshima, Michihiro C. Yoshida, Tamio Noguchi, Takehiko Tanaka, and Shiro Miwa Nonenzymatic Synthesis of δ-Aminolevulinate (ALA) by Cobalt (CO ²⁺) Nishi K. Singh, Rashmi Chhabra, and Kasturi Datta Methylation of the α-Fetoprotein Gene in Isogenic Rat Hepatoma and Liver Cell Lines Keiko Sakuma, Jeffry R. Cook, Catharine L. Smith, and Jen-Fu Chiu ATP Stimulates Inositol Phosphate Accumulation and Calcium Mobilization in a Primary Culture of Rat Aortic Myocytes Sylvain Phaneuf, Philippe Berta, Jean Casanova, and Jean-Claude Cavadore P. falciparum Invasion of Human Red Cells and Cytoadherence to Endothelial Cells Is Dependent upon a Parasite-Produced Glycosidase Michael T. Makler Differential Calcium Effects on Prostaglandin D₂ Generation and Histamine Release from Isolated Rat Peritoneal Mast Cells Hideo Kawabe, Hideya Hayashi, and Osamu Hayaishi Caldesmon Specifically Inhibits the Effect of Tropomyosin on Actomyosin System in Platelets Toyoshi Onji, Michiko Takagi, and Nobuhiko Shibata	411 418 424 431 439 447 454 461

Treated Neutrophils Stimulated by fMet-Leu-Phe	
T. Matsumoto, T. F. P. Molski, Y. Kanaho, E. L. Becker, and R. I. Sha'afi	489
Superactive Analogs of the Atrial Natriuretic Peptide (ANP)	
Peter W. Schiller, Louise A. Maziak, Thi MD. Nguyen, Jean Godin,	
Raul Garcia, André DeLéan, and Marc Cantin	499
Mixed Phospholipid-Cardiotoxin Monomolecular Films Studied by Intrinsic Polarized	
Surface Fluorescence P. E. Bougis, J. Teissié, H. Rochat,	506
G. Piéroni, and R. Verger	506
Partially Purified Phosphatidylinositol Kinase Does Not Catalyze the Formation of Phosphatidylinositol-4,5-bisphosphate	
Carlos A. Suárez-Quian, John J. O'Shea, and Richard D. Klausner	512
A 16-kDa Protein Substrate for Protein Kinase C and Its Phosphorylation upon Stimulation	512
of Vasopressin Receptors in Rat Aortic Myocytes	
Chantal Boulanger-Saunier and Jean-Claude Stoclet	517
Retinoic Acid Alters the Metabolic ³ H-Labeling of Glycosphingolipids	317
Herbert Wiegandt, Ralf Helland, and Klaus Radsak	525
Serotonin-Induced Cytosolic Free Calcium Transients in Cultured Vascular Smooth Muscle	323
Cells Hideo Kanaide, Mayumi Hasegawa,	
Sei Kobayashi, and Motoomi Nakamura	532
Possible Involvement of Protein Kinase C in Parathyroid Hormone Degradation by	002
Osteoblast-like Rat Osteosarcoma Cell Line UMR106	
Toru Yamaguchi, Hisamitsu Baba, Masaaki Fukase,	
Yoshikazu Kinoshita, Tadao Fujimi, and Takuo Fujita	539
Inhibition of Nicotine-Induced Secretion from Bovine Chromaffin Cells by the Amidated	
C-Terminal Sequence of the Opioid Peptide Amidorphin	
Daniel Liebisch, Michael Bommer, Monika Schimak, and Albert Herz	545
Physiological Correlation between Nucleoside-Diphosphate Kinase and the Enzyme-	
Associated Guanine Nucleotide Binding Proteins	
Hiroshi Uesaka, Minehiko Yokoyama, and Kenzo Ohtsuki	552
Conversion of β -Human Atrial Natriuretic Polypeptide into α -Human Atrial Natriuretic	
Polypeptide in Human Plasma in Vitro	
Hiroshi Itoh, Kazuwa Nakao, Shozo Shiono, Masashi Mukoyama,	
Narito Morii, Akira Sugawara, Takayuki Yamada, Yoshihiko Saito,	
Hiroshi Arai, Yoshikazu Kambayashi, Ken Inouye, and Hiroo Imura	560
Monoclonal Anti-parathyroid Antibodies Interfering with a Ca ²⁺ Sensor of Human	
Parathyroid Cells Claes Juhlin, Hans Johansson, Rikard Holmdahl,	
Erik Gylfe, Rolf Larsson, Jonas Rastad, Göran Åkerström, and Lars Klareskog	570
Impurities in Commercial Xanthine Oxidase Inhibit Ca Pump and Interfere in Contractility of Pig Coronary Artery A. K. Grover and S. E. Samson	575
Preliminary Studies on the Primary Structure of Rat Liver Dihydropteridine Reductase	575
Stephanie Webber, John Hural, and John M. Whiteley	582
Identification of a Peptidase Which Processes Atrial Natriuretic Factor Precursor to Its	362
Active Form with 28 Amino Acid Residues in Particulate Fractions of Rat Atrial	
Homogenate Teruaki Imada, Ryoichi Takayanagi, and Tadashi Inagami	587
A Bacteriophage Transcription Terminator Permits the Cloning of a Mammalian Expression	507
Vector Carrying the Human Pre-prorenin Gene in E. coli	
Tony F. Weighous and W. Gary Tarpley	593
Phorbol Ester, Retinoic Acid, and Diacylglycerol Decrease Ecto- but Increase Total Basal-	0,0
Protein Kinase Activity of Human Fibroblasts Bernhard M. K. Gmeiner	600
Mobilization of Mitochondrial Ca ²⁺ by Hydroperoxyeicosatetraenoic Acid	
Christopher Richter, Balz Frei, and Peter A. Cerutti	609
Effects of Diadenosine 5',5"'-P ¹ ,P ⁴ -Tetraphosphate and of Adenosine 5'-Triphosphate on the	
Higher Order Structure of Calf Thymus DNA	
Richard B. Westkaemper and Alfred J. Richard	617

G-Protein Dissociation, GTP-GDP Exchange, and GTPase Activity in Control and PMA-

Table	٥f	Contonto
iable	OΤ	Contents

The Expressions of Oncogenes and Liver-Specific Genes in Morris Hepatomas Gilbert J. Cote and Jen-Fu Chiu	624
The Diacylglycerol Kinase Inhibitor, R59022, Enhances the Superoxide Generation from Human Neutrophils Induced by Stimulation of fMet-Leu-Phe, IgG, and C3b	024
Receptors Robert E. Muid, Adrienne Penfield, and M. Maureen Dale	630
The Distinct Role of Catalase and DNA Repair Systems in Protection against Hydrogen Peroxide in Escherichia coli Shuji Yonei, Reiko Yokota, and Yoshibumi Sato	638
The Carbohydrate Specificity of Conglutinin and Its Homology to Proteins in the Hepatic Lectin Family N. Martin Young and Myron A. Leon	645
Position 3 Analogs of a Crustacean Pigment-Dispersing Hormone: Synthesis and Biological Activity William H. Jorenby, John P. Riehm, and K. Ranga Rao	652
Activity William H. Jorenby, John P. Riehm, and K. Ranga Rao Human U3 Small Nucleolar RNA Genes Are Localized to the Nucleoplasm	032
Dick Suh, Harris Busch, and Ram Reddy	658
GnRH-Associated Peptide (GAP) Is Co-secreted with GnRH into the Hypophyseal Portal	
Blood of Ovariectomized Sheep I. J. Clarke, J. T. Cummins, F. J. Karsh, P. H. Seeburg, and K. Nikolics	665
Stimulation of Superoxide Anion Formation by the Non-TPA-Type Tumor Promoters	COD
Palytoxin and Thapsigargin in Porcine and Human Neutrophils	
Shojiro Kano, Tetsutaro Iizuka, Yuzuru Ishimura,	
Hirota Fujiki, and Takashi Sugimura	672
Physiologically Induced Changes in Proopiomelanocortin mRNA Levels in the Pituitary	
Gland of the Amphibian Xenopus laevis Gerard J. M. Martens.	
Koen A. P. Weterings, Ingrid D. van Zoest, and Bruce G. Jenks	678
Proton Nuclear Magnetic Resonance Measurement of the Amide Hydrogen Exchange Rates	
of Group A Streptococcal Polysaccharides in H ₂ O	685
Dee-Hua Huang, David G. Pritchard, Ted T. Sakai, and N. Rama Krishna Autophosphorylation of Plasma Membrane-Bound Calcium Calmodulin-Dependent	003
Protein Kinase from Pea Seedlings and Modification of Catalytic Activity by	
Autophosphorylation Pea Seedings and Modification of Catalytic Activity by Autophosphorylation D. P. Blowers and A. J. Trewavas	691
Enzymatic Hydrolysis of Leukotriene A ₄ into 5,6-Dihydroxy-7,9,11,14-eicosatetraenoic	0,1
Acid and LTB ₄ by Mammalian Kidney Juan F. Medina, Jesper Haeggström,	
Anders Wetterholm, Alf Wallin, and Olof Radmark	697
Evidence for a Junctional Feet-Ryanodine Receptor Complex from Sarcoplasmic	
Reticulum F. Anthony Lai, Harold Erickson, Barbara A. Block,	
and Gerhard Meissner	704
Proteolytic Processing of Epidermal Growth Factor within Endosomes	
R. P. Schaudies, R. M. Gorman, C. R. Savage, Jr., and R. D. Poretz	710
Predefined Gene Transfer for Expression of a Glycosphingolipid Antigen by Transfection	
with a Cosmid Genomic Library Prepared from a Cell Line in Which the Specific	
Glycosphingolipid Is Highly Expressed Hisako Kojima, Shigeru Tsuchiya,	716
Kiyotoshi Sekiguchi, Richard Gelinas, and Sen-itiroh Hakomori Antigenic Determinants of Lipid A Analyzed with Synthetic Models and Monoclonal	/10
Antibodies Richard Chaby, Daniel Charon, Thierry Pedron,	
and Robert Girard	723
Use of Antibodies to Probe Membrane Glycoproteins Associated with Drug-Resistant	, 23
J774.2 Cells Ron Zeheb, Howard F. Beittenmiller, and Susan Band Horwitz	732
Complete Amino Acid Sequence of the Human Progesterone Receptor Deduced from	
Cloned cDNA Micheline Misrahi, Michel Atger, Luc d'Auriol,	
Hugues Loosfelt, Cécile Meriel, Françoise Fridlansky,	
Anne Guiochon-Mantel, Francis Galibert, and Edwin Milgrom	740
Significant Effects of Z-Gln-Val-OMe, Common Sequences of Thiol Proteinase	
Inhibitors on Thiol Proteinases N. Teno, S. Tsuboi, N. Itoh,	740
H. Okamoto, and Y. Okada	749

Rat Liver Giuseppe Scalabrino, Maria Elena Ferioli, Roberta Piccoletti,	
and Aldo Bernelli-Zazzera	856
Vitamins E and K Induce Aryl Hydrocarbon Hydroxylase Activity in Human Cell Cultures	
Yuan-Tsong Chen and Jia-Huan Ding	863
LH-Releasing Activity and Receptor Binding of pHGnRH 14-26 Analogs	
S. C. F. Milton, R. P. Millar, and R. C. de L. Milton	872
Epidermal Growth Factor (EGF) and Tumor Promoter 12-O-Tetradecanoylphorbol	
13-Acetate (TPA) Stimulate PG Synthesis and Thymidine Incorporation in Cultured	
Porcine Thyroid Cells Nobuyuki Takasu, Seiya Sato, Takashi Yamada,	
and Yoshifusa Shimizu	880
Chitin Oligosaccharides as Elicitors of Chitinase Activity in Melon Plants	
Dominique Roby, Andrée Gadelle, and Alain Toppan	885
Inhibition of Membrane Ca ²⁺ -ATPase in Vitro by Mating Pheromone in Rhodosporidium	
toruloides, a Heterobasidiomycetous Yeast Tokichi Miyakawa,	
Tamaki Tachikawa, Yong Kee Jeong, Eiko Tsuchiya, and Sakuzo Fukui	893
Purification and Characterization of the Larvicidal Toxin of Bacillus sphaericus 1593M	
Francesco Sgarrella and Jekisiel Szulmajster	901
GTP-Binding Protein(s) in Green Plant, Lemna paucicostata	
Kohji Hasunuma and Kanako Funadera	908
Isolation of a Biotin Receptor from Hepatic Plasma Membranes	
David L. Vesely, Stephen F. Kemp, and M. Joycelyn Elders	913
Isolation of a Protein C Activator from Southern Copperhead Venom	
Walter Kisiel, Ellen Choi, and Shinichi Kondo	917
The Effect of Polymyxin B Nonapeptide (PMBN) on Transformation Petri Viljanen	923
Binding Ability of Clostridium botulinum Neurotoxin to the Synaptosome upon Treatment	
of Various Kinds of Enzymes Masaru Kitamura and Saburo Sone	928
Basic Fibroblast Growth Factor Is Synthesized in Cultured Retinal Pigment Epithelial Cells	
Lothar Schweigerer, Barbara Malerstein, Gera Neufeld, and Denis Gospodarowicz	934
Spin Trapping Artifacts in DMSO Klaus Stolze and Ronald P. Mason	941
A Synergistic Effect on Microvessel Cell Proliferation between Basic Fibroblast Growth	
Factor (FGFb) and Endothelial Cell Stimulating Angiogenesis Factor (ESAF)	
Rajesh Odedra and Jacqueline B. Weiss	947
The Fate of Internalized α -2-Macroglobulin: α -Galactosidase Conjugate in Fibroblasts	<i>,</i> , ,
from Fabry's Hemizygote Toshiya Osada, Yoichiro Kuroda, and Atsushi Ikai	954
Evidence for Multisite Allosteric Interactions on the Band 3 Monomer	,,,,
James M. Salhany, Peter B. Rauenbuehler, and Renee L. Sloan	959
Evidence for the Involvement of Histidine at the Active Site of Glutathione S-Transferase ψ	757
from Human Liver	
Yogesh C. Awasthi, Aruni Bhatnagar, and Shivendra V. Singh	965
Inhibition of Mitochondrial α-Ketoglutarate Dehydrogenase by 1-Methyl-4-phenyl-	,00
pyridinium Ion Yoshikuni Mizuno, Tomohiko Saitoh, and Nobuhito Sone	971
Glycerol Metabolism in Higher Plants: Glycerol Kinase D. Sadava and K. Moore	977
Acetaldehyde-Mediated Hepatic Lipid Peroxidation: Role of Superoxide and Ferritin	7.,
S. Shaw and E. Jayatilleke	984
Arachidonic Acid Inhibits Phosphate Transport by Cultured Renal Cells	,,,
Yoshikazu Kinoshita, Masaaki Fukase, Masamichi Nakai, and Takuo Fujita	991
Tumor Necrosis Factor Inhibits the Proliferation of Cultured Capillary Endothelial Cells	//1
Lothar Schweigerer, Barbara Malerstein, and Denis Gospodarowicz	997
Resolution of Conformational Equilibria in Linear Peptides by Circular Dichroism in	
Cryogenic Solvents G. Siligardi, A. F. Drake, P. Mascagni, P. Neri,	
L. Lozzi, N. Niccolai, and W. A. Gibbons	1005
Decreased Intracellular Free Magnesium in Erythrocytes of Spontaneously Hypertensive	
Rats T. Matuura, M. Kohno, Y. Kanayama, K. Yasunari, K. Murakawa,	
T. Takeda, K. Ishimori, I. Morishima, and T. Yonezawa	1012
•	

Photoaffinity Labeling Studies of the Rat Renal Sodium/Bile Salt Cotransport System	
Gerhard Burckhardt, Werner Kramer, Gerhart Kurz, and Frederick A. Wilson	1018
Ca ²⁺ Ionophoretic Activity of Oligomers of Prostaglandin B ₁ with Isolated Hepatocytes	
Salvador Uribe, Rafael Villalobos-Molina, and Thomas M. Devlin	1024
Fluorescein Mercuric Acetate Specifically Displaces Zinc from Cytochrome Oxidase	
Ali Moubarak, Lian Ping Pan, and Francis Millett	1030
A Free Radical Scavenger Role for Daunomycin: Inhibition of Nonenzymatic Oxidation of	
NADH Yitbarek H. Mariam and Bettie Wright	1037
Effects of Myosin Light-Chain Kinase Inhibitor on Catecholamine Secretion from Rat	
Pheochromocytoma PC12h Cells Toshiharu Nagatsu, Hiroko Suzuki,	
·	1045
Release of Core DNA from Nucleosomal Core Particles following (ADP-Ribose) n-	1043
Modification in Vitro Georg Mathis and Felix R. Althaus	1049
Transcriptional Induction of Proto-oncogene fos by HSV-2 Biswendu B. Goswami	
	1033
A 2-Deoxy Analog of KDO as the First Inhibitor of the Enzyme CMP-KDO Synthetase	1000
Alf Claesson, Kristina Luthman, Kent Gustafsson, and Göran Bondesson	1063
Measurement of P _i Dissociation from Actin Filaments following ATP Hydrolysis Using a	
Linked Enzyme Assay Marie-France Carlier	1069
Adenosine 3',5'-Cyclic Monophosphate Stimulates Secretion of α -Melanocyte-Stimulating	
Hormone from Permeabilized Cells of the Intermediate Lobe of the Rat Pituitary	
Gland	
Toshifumi Yamamoto, Yoshihiro Furuki, Simon Guild, and John W. Kebabian	1076
Membrane-Directed Effects of the Plant Hormones Abscisic Acid, Indole-3-acetic Acid and	
2,4-Dichlorophenoxyacetic Acid	
Charles L. Schauf, Blair Bringle, and William Stillwell	1085
Isolation of a cDNA Clone for Rat Liver 6-Phosphofructo 2-Kinase/Fructose	1000
2,6-Bisphosphatase	
Ann D. Colosia, Mark Lively, M. Raafat El-Maghrabi, and Simon J. Pilkis	1002
The Role of Human Globin Gene Promoters in the Expression of Hybrid Genes in Erythroid	1092
and Nonerythroid Cells	
Santina Acuto, Maryann Donovan-Peluso, Nino Giambona, and Arthur Bank	1000
Bay-K-8644, a Calcium Channel Agonist, Induces a Rise in Cytoplasmic Free Calcium and	1099
Iodide Discharge in Thyroid Cells Nobuyuki Takasu, Manabu Murakami,	
Yoshitaka Nagasawa, Takashi Yamada, Yoshifusa Shimizu,	
Itaru Kojima, and Etsuro Ogata	1107
ERRATUM	
Volume 141, Number 1, November 26, 1986: Nina Langeland, Lars Haarr, and Holm	
Holmsen, "Evidence that Neomycin Inhibits HSV 1 Infection of BHK Cells,"	
pp. 198–203	1112
Author Index for Volume 143	1113
Volume 144, Number 1, April 14, 1987	
AUTHOR INDEX, Volume 144, Number 1, April 14, 1987	ii
pBR322 Contains Glucocorticoid Regulatory Element DNA Consensus Sequences	•••
Douglas B. Tully and John A. Cidlowski	1
Inhibition of Tyrosine Autophosphorylation of the Solubilized Insulin Receptor by an	1
Insulin Stripulating Dentide Dentide from Paving Semina Albumin	
Insulin-Stimulating Peptide Derived from Bovine Serum Albumin	11
Akemichi Ueno, Naokatu Arakaki, Yoshiro Takeda, and Hajime Fujio	11
Insulin Stimulates the Phosphorylation Level of v-Ha-ras Protein in Membrane Fraction	
Tohru Kamata, Satish Kathuria, and Yoko Fujita-Yamaguchi	19
Two-Dimensional NMR Studies on the Solution Structure of d-CTCGAGCTCGAG	
Anu Sheth, M. Ravikumar, R. V. Hosur, Girjesh Govil,	
Tan-7u-Kun and H T Miles	26

K252a, a New Inhibitor of Protein Kinase C, Concomitantly Inhibits 40K Protein Phosphorylation and Serotonin Secretion in Phorbol Ester-Stimulated Platelets Koji Yamada, Kazuyuki Iwahashi, and Hiroshi Kase	35
Globoid Cell Leukodystrophy Is a Generalized Galactosylsphingosine (Psychosine) Storage Disease Takuro Kobayashi, Hisaharu Shinoda, Ikuo Goto,	
Tatsuhiro Yamanaka, and Yoshiyuki Suzuki	41
Reduced Thiol Content in L1210 Cells Treated with BSO Increases DNA Crosslinking by Melphalan **Robert T. Dorr**	47
Cerebral Metabolism in Brain Tumor of Mice Studied by in Vivo ³¹ P-NMR Spectroscopy	• •
Kenzo Kato, Akira Ohsaka, Kazuhiro Matsushita, and Kenichi Yoshikawa	53
Molecular Cloning and Amino Acid Sequence of Rat Enkephalinase Bernard Malfroy, Peter R. Schofield, Wun-Jing Kuang, Peter H. Seeburg,	
Anthony J. Mason, and William J. Henzel	59
Time-Dependent Effects of Follicle-Stimulating Hormone on Progesterone Metabolism by	
Cultured Rat Granulosa Cells Young S. Moon, Antoni J. Duleba, and Basil Ho Yuen	67
Partial Primary Structures of Human and Murine Macrophage Colony-Stimulating Factor	G,
(CSF-1) Albert Boosman, James E. Strickler, Kenneth J. Wilson,	
and E. Richard Stanley	74
Neuron Localization and Neuroblastoma Cell Expression of Brain-Derived Growth Factor	01
Shuan Shian Huang, Cheng C. Tsai, Steven P. Adams, and Jung San Huang Studies on Species Cross-Reactivity of Hemopexin by Use of Monoclonal and Polyclonal	81
Antibodies Sylvia A. Metcalfe, Maria G. De Falco, Keith J. Griffin,	
Heng H. Liem, and Ursula Muller-Eberhard	88
Stimulation of Fatty Acid Uptake and Triglyceride Synthesis in Human Cultured Skin	
Fibroblasts and Adipocytes by a Serum Protein K. Cianflone,	94
P. O. Kwiterovich, M. Walsh, A. Forse, M. A. Rodriguez, and A. D. Sniderman Inhibition of Human Neutrophil Collagenase by Gold(I) Salts Used in Chrysotherapy	74
Satish K. Mallya and Harold E. Van Wart	101
The Effect of Metyrapone on Cytokinin ([8-14C]Benzylaminopurine) Metabolism in Mature	100
Green Tomato Pericarp A. R. Long and Grady W. Chism III Effect of Heparin-Binding Growth Factors on Monovalent Cation Transport in Balb/C 3T3	109
Cells José A. Halperin and Roy R. Lobb	115
A Phospholipase A ₂ Isoenzyme Provokes Lipoxin B Formation from Endogenous Sources	
of Arachidonic Acid in Porcine Leukocytes Bing K. Lam, Charles N. Serhan,	
Bengt Samuelsson, and Patrick Y-K. Wong	123
Human Myeloma Cells Acquire Resistance to Diffuoromethylornithine without Overproducing Ornithine Decarboxylase L. Alhonen-Hongisto, P. Leinonen,	
R. Laine, and J. Jänne	132
Galactosialidosis: A Direct Evidence That a 46-Kilodalton Protein Restores Deficient	
Enzyme Activities in Fibroblasts Eiji Nanba, Akihiko Tsuji, Kiyoshi Omura,	120
and Yoshiyuki Suzuki	138
Extracellular Endoglucanase Activity by a Novel Bacterium Isolated from Marine Shipworm Harold L. Griffin, Shelby N. Freer, and Richard V. Greene	143
Inhibition by 1-(5-Isoquinolinesulfonyl)-2-methylpiperazine, an Inhibitor of Protein Kinase	
C, of Enzyme Induction by Glucocorticoid, and of Nuclear Translocation of	
Glucocorticoid-Receptor Complexes Hiroshi Kido, Naomi Fukusen,	4.50
Tyrosine Phosphorylation of Interleukin 2 Receptor-Related Proteins in	152
Tyrosine Phosphorylation of Interleukin 2 Receptor-Related Proteins in Phytohemagglutinin-Activated Human Lymphocytes Ryoichi Ogawa,	
Kazuo Sugamura, and Yasushi Watanabe	160
The Inhibition of 3βHSD Activity in Cultured Granulosa Cells by 4-MA, a Potent	
5α-Reductase Inhibitor Woon-Khiong Chan, Chui-Yee Fong,	166
Hui-Huang Tiong, and Cheong-Huat Tan	166

Effects of Maitotoxin on Ionic and Secretory Events in Rat Pancreatic Islets	
P. Lebrun, M. Hermann, T. Yasumoto, and A. Herchuelz	172
Antibody against Nuclear Thyroid Hormone Receptors Kazuo Ichikawa	
and Leslie J. DeGroot	178
Analysis of Human Terminal Deoxynucleotidyltransferase cDNA Expressible in	
Mammalian Cells Osamu Koiwai, Tsuguhiro Kaneda, and Rika Morishita	185
Antibody That Recognizes Conformations of Calmodulin in the Serum from Patients with	100
Chronic Active Hepatitis Yusei Ikeda, Gotaro Toda, Naoaki Hashimoto,	
	191
Toshiyuki Maruyama, and Hiroshi Oka	191
Photosynthetic Action Spectra of the Energy Storage in Bundle Sheath Cells of Zea mays	100
R. Popovic, M. Beauregard, and R. M. Leblanc	198
Membranous Phosphoglyceride-Linked Biosynthesis of Pentadeca Peptide, Linear	
Gramicidin, by Bacillus brevis ATCC 8185 Kou Kubota	203
Apolipoprotein B Is a Globular Protein: Morphological Studies by Electron Microscopy	
Diana M. Lee, David L. Stiers, and Tina Mok	210
Clostridium perfringens Type A Enterotoxin Induces Release of Noradrenaline from the	
Neurosecretory PC12 Cell Line Kunihiro Ozutsumi, Nakaba Sugimoto,	
and Morihiro Matsuda	217
Spectral Properties of Cytochrome c' from Rhodopseudomonas capsulata B100 and Its CO	
Complex Tetsuhiko Yoshimura, Shinnichiro Suzuki, Hidekazu Iwasaki,	
and Susumu Takakuwa	224
Substance P Induces Alterations on Cerebral Lipids Involved in Membrane Fluidity	227
R. E. Catalán, A. M. Martínez, M. D. Aragonés, A. Robles, and B. G. Miguel	222
Effect of a High Carbohydrate Diet on Cardiac α -1 and β Adrenoceptors	232
	220
Constantinos J. Limas and Catherine Limas	238
Purification and Characterization of Two Types of Atrial Natriuretic Factor Receptors from	
Bovine Adrenal Cortex: Guanylate Cyclase-Linked and Cyclase-Free Receptors	
Ryoichi Takayanagi, Rudolf M. Snajdar, Teruaki Imada, Masaaki Tamura,	
Kailash N. Pandey, Kunio S. Misono, and Tadashi Inagami	244
Isolation of the Alkane Inducible Cytochrome P-450 (P450alk) Gene from the Yeast	
Candida tropicalis Dominique Sanglard, Chien Chen, and John C. Loper	251
Isolation of a Cytochrome P-450e Gene Variant and Characterization of Its 5' Flanking	
Sequences P. N. Rangarajan, H. Ravishankar, and G. Padmanaban	258
Identification of a Novel Inositol Bisphosphate Isomer Formed in Chemoattractant-	
Stimulated Human Polymorphonuclear Leukocytes Susan B. Dillon,	
John J. Murray, and Ralph Snyderman	264
Carrier RNA Enhancement of Recovery of DNA from Dilute Solutions	_•
Margaret L. Gallagher, William F. Burke, Jr., and Karen Orzech	271
New Chelator-Sensitive Proteases in Matrix of Yeast Mitochondria	2,1
Toshimasa Yasuhara and Akira Ohashi	277
Sex-Mediated Lipid Metabolism in Human Aortic Smooth Muscle Cells	211
	204
Syed M. Naseem and Felix P. Heald	284
Inhibition of γ-Glutamyl Hydrolases in Human Cells by 2-Mercaptomethylglutaric Acid	202
V. Michael Whitehead, Thomas I. Kalman, and Mary-Jane Vuchich	292
Identification and Molecular Characterization of Galanin Receptor Sites in Rat Brain	
Alain L. Servin, Brigitte Amiranoff, Christiane Rouyer-Fessard,	
Kazuhiko Tatemoto, and Marc Laburthe	298
Campylobacter pyloridis Degrades Mucin and Undermines Gastric Mucosal Integrity	
B. L. Slomiany, J. Bilski, J. Sarosiek, V. L. N. Murty, B. Dworkin,	
K. VanHorn, J. Zielenski, and A. Slomiany	307
Stabilized Ubisemiquinone in Reconstituted Succinate Ubiquinone Reductase	
Y. Xu, J. C. Salerno, Y. H. Wei, and Tsoo E. King	315
N-Hydroxysuccinimide-Hippuran Ester: Application for Radiolabeling of	
Macromolecules Kuldeep K. Bhargava and L. Rao Chervu	323

Histone-H1 Inhibits Translation by Reticulocyte Lysates with Relative mRNA Selectivity	
Nicola E. O'Leary, Ijaz R. Cheema, Keith Moore,	220
William B. Mehard, and Maria G. Buse	329
Activation of Protein Kinase C Down-Regulates IFN-γ Receptors	225
Antonella Fassio, Franca Cofano, Giorgio Cavallo, and Santo Landolfo	337
Endothelial Cell Proliferation May Be Mediated via the Production of Endogenous	
Lipoxygenase Metabolites B. N. Yamaja Setty, Ronald L. Dubowy,	245
and Marie J. Stuart	345
Effect of Chronic Uremia on Fructose 2,6-Bisphosphate Glycolytic and Gluconeogenic	
Enzymes in Rat Liver Jose F. Caro, Madhur K. Sinha, and G. Lynis Dohm	352
Triazolobenzodiazepines Competitively Inhibit the Binding of Platelet Activating Factor	
(PAF) to Human Platelets Carolyn M. Chesney, D. David Pifer,	250
and Lauren M. Cagen	359
Isolation and Sequence of a cDNA Clone for the Rat Pulmonary Surfactant-Associated	
Protein (PSP-A) Kimihiko Sano, James Fisher, Robert J. Mason,	2
Yoshio Kuroki, James Schilling, Bradley Benson, and Dennis Voelker	367
[3-13C-]Methionine-Labeled Escherichia coli Alkaline Phosphatase	255
Denise Hines and Jan F. Chlebowski	375
A Novel Mechanism for Utilization of Extracellular AMP in Vibrio parahaemolyticus	
Yuki Sakai, Kiyomi Toda, Yuki Mitani, Masaaki Tsuda, and Tomofusa Tsuchiya	382
On the Origin of Heterogeneity of Fluorescence Decay Kinetics of Reduced Nicotinamide	
Adenine Dinucleotide G. Krishnamoorthy, N. Periasamy,	205
and B. Venkataraman	387
Specific Binding of Phorbol Esters to Nuclei of Human Promyelocytic Leukemia Cells	• • •
A. S. Kraft, C. Appling, and R. L. Berkow	393
Regulated Expression of Human Atrial Natriuretic Polypeptide Gene in Mouse L Cells	
Naoharu Iwai, Masato Matsunaga, Kazuya Ogawa,	400
Etsuko Ohta, and Chuichi Kawai	402
Effect of α -1-Antichymotrypsin on DNA Synthesis in Permeabilized Human Cells	
Michio Tsuda, Yuri Umezawa, Masashi Masuyama,	400
Kurumi Yamaguchi, and Tsunehiko Katsunuma	409
Effect of BCNU Pretreatment on Diquat-Induced Oxidant Stress and Hepatotoxicity	
Charles V. Smith	415
Divergence of ANF Analogs in Smooth Muscle Cell cGMP Response and Aorta	
Vasorelaxation: Evidence for Receptor Subtypes Gerald P. Budzik,	
Susan L. Firestone, Eugene N. Bush, Peter J. Connolly,	400
Todd W. Rockway, Virender K. Sarin, and William H. Holleman	422
Dithiothreitol-Induced Oxidative Damage to Thymine and DNA in Solution	400
H. Gregg Claycamp	432
Histamine-Induced Phosphoinositide Metabolism in Cultured Human Umbilical Vein Endothelial Cells: Association with Thromboxane and Prostacyclin Release	
Thérèse J. Resink, George Yu. Grigorian, Aigul K. Moldabaeva,	120
Sergey M. Danilov, and Fritz R. Bühler Methyl Iodide, a Potent Inducer of the Adaptive Response without Appreciable	438
Mutagenicity in Escherichia coli Maprive Response Without Appreciable Kazuhiko Takahashi and Yutaka Kawazoe	447
Neomycin Inhibits Agonist-Stimulated Polyphosphoinositide Metabolism and Responses in	44/
Human Platelets Ole-Bjørn Tysnes, Adrie J. M. Verhoeven,	
and Holm Holmsen	454
Bombesin Binding and Biological Effects on Pancreatic Acinar AR42J Cells	424
Craig D. Logsdon, Jinchao Zhang, Janice Guthrie,	
Steve Vigna, and John A. Williams	463
Development, Validation, and Application of an Enzyme Immunoassay (EIA) of	703
Atriopeptin Laura L. McLaughlin, Yuefang Wei, Paul T. Stockmann,	
Kathleen M. Leahy, Philip Needleman, Jacques Grassi, and Phillippe Pradelles	469
,	

Margarita Cervera, Alberto Domingo,

Intermediate-like Filaments

Javier Vinós, and Roberto Marco	1043
Effect of Actinomycin D on DNA Replication and c-myc Expression during Rat Liver	
Regeneration Saburo Horikawa, Keiko Sakata, Fumiaki Uchiumi,	
	1049
On the Regulatory Importance of 1,25-Dihydroxyvitamin D ₃ and Dietary Calcium on	2015
Serum Levels of 25-Hydroxyvitamin D ₃ in Rats	
	1055
Tomas Berlin and Ingemar Björkhem	1022
Urinary TGFs in Neoplasia: Immunoreactive TGF α in the Urine of Patients with	
Disseminated Breast Carcinoma Kurt Stromberg, W. Robert Hudgins,	
and David N. Orth	1059
The Mouse Homolog of the Human Amyloid β Protein (AD-AP) Gene Is Located on the	
Distal End of Mouse Chromosome 16: Further Extension of the Homology between	
Human Chromosome 21 and Mouse Chromosome 16 Michael Lovett,	
Dmitry Goldgaber, Patricia Ashley, David R. Cox,	
D. Carleton Gajdusek, and Charles J. Epstein	1069
Binding Characteristics of Atrial Natriuretic Factor and the Production of Cyclic GMP in	
Kidneys of Dahl Salt-Sensitive and Salt-Resistant Rats Alexander Hinko,	
	1076
	1076
Presence of Tetrahydroisoquinoline and 2-Methyl-tetrahydroquinoline in Parkinsonian and	
Normal Human Brains Toshimitsu Niwa, Naohito Takeda, Norio Kaneda,	
·	1084
Direct Radioimmunoassay for Rat T-Kininogen Bouhnik Jacob, Baussant Thierry,	
Savoie Françoise, François Alhenc-Gelas, Gauthier Francis,	
and Esnard Frédéric	1090
Volume 144, Number 3, May 14, 1987	
	ii
AUTHOR INDEX, Volume 144, Number 3, May 14, 1987	ii
AUTHOR INDEX, Volume 144, Number 3, May 14, 1987 Biochemical and Genetic Evidence for Distinct Membrane-Bound and Cytosolic Sialic Acid	ii
AUTHOR INDEX, Volume 144, Number 3, May 14, 1987 Biochemical and Genetic Evidence for Distinct Membrane-Bound and Cytosolic Sialic Acid O-Acetyl-esterases: Serine-Active-Site Enzymes Herman H. Higa,	
AUTHOR INDEX, Volume 144, Number 3, May 14, 1987 Biochemical and Genetic Evidence for Distinct Membrane-Bound and Cytosolic Sialic Acid O-Acetyl-esterases: Serine-Active-Site Enzymes Herman H. Higa, Sandra Diaz, and Ajit Varki	
AUTHOR INDEX, Volume 144, Number 3, May 14, 1987 Biochemical and Genetic Evidence for Distinct Membrane-Bound and Cytosolic Sialic Acid O-Acetyl-esterases: Serine-Active-Site Enzymes Herman H. Higa, Sandra Diaz, and Ajit Varki Gold(III) Inhibits Activated Human Osteosarcoma Adenylate Cyclase by an Action at or	1099
AUTHOR INDEX, Volume 144, Number 3, May 14, 1987 Biochemical and Genetic Evidence for Distinct Membrane-Bound and Cytosolic Sialic Acid O-Acetyl-esterases: Serine-Active-Site Enzymes Herman H. Higa, Sandra Diaz, and Ajit Varki Gold(III) Inhibits Activated Human Osteosarcoma Adenylate Cyclase by an Action at or near the Catalytic Component F. van Valen and E. Keck	1099
AUTHOR INDEX, Volume 144, Number 3, May 14, 1987 Biochemical and Genetic Evidence for Distinct Membrane-Bound and Cytosolic Sialic Acid O-Acetyl-esterases: Serine-Active-Site Enzymes Herman H. Higa, Sandra Diaz, and Ajit Varki Gold(III) Inhibits Activated Human Osteosarcoma Adenylate Cyclase by an Action at or near the Catalytic Component F. van Valen and E. Keck Human Creatine Kinase: Isolation and Sequence Analysis of cDNA Clones for the B	1099
AUTHOR INDEX, Volume 144, Number 3, May 14, 1987 Biochemical and Genetic Evidence for Distinct Membrane-Bound and Cytosolic Sialic Acid O-Acetyl-esterases: Serine-Active-Site Enzymes Herman H. Higa, Sandra Diaz, and Ajit Varki Gold(III) Inhibits Activated Human Osteosarcoma Adenylate Cyclase by an Action at or near the Catalytic Component F. van Valen and E. Keck Human Creatine Kinase: Isolation and Sequence Analysis of cDNA Clones for the B	1099
AUTHOR INDEX, Volume 144, Number 3, May 14, 1987 Biochemical and Genetic Evidence for Distinct Membrane-Bound and Cytosolic Sialic Acid O-Acetyl-esterases: Serine-Active-Site Enzymes Herman H. Higa, Sandra Diaz, and Ajit Varki Gold(III) Inhibits Activated Human Osteosarcoma Adenylate Cyclase by an Action at or near the Catalytic Component F. van Valen and E. Keck Human Creatine Kinase: Isolation and Sequence Analysis of cDNA Clones for the B Subunit, Development of Subunit Specific Probes, and Determination of Gene Copy	1099
AUTHOR INDEX, Volume 144, Number 3, May 14, 1987 Biochemical and Genetic Evidence for Distinct Membrane-Bound and Cytosolic Sialic Acid O-Acetyl-esterases: Serine-Active-Site Enzymes Herman H. Higa, Sandra Diaz, and Ajit Varki Gold(III) Inhibits Activated Human Osteosarcoma Adenylate Cyclase by an Action at or near the Catalytic Component F. van Valen and E. Keck Human Creatine Kinase: Isolation and Sequence Analysis of cDNA Clones for the B Subunit, Development of Subunit Specific Probes, and Determination of Gene Copy Number Gerardo Villarreal-Levy, Tony S. Ma, Sandra A. Kerner,	1099 1109
AUTHOR INDEX, Volume 144, Number 3, May 14, 1987 Biochemical and Genetic Evidence for Distinct Membrane-Bound and Cytosolic Sialic Acid O-Acetyl-esterases: Serine-Active-Site Enzymes Herman H. Higa, Sandra Diaz, and Ajit Varki Gold(III) Inhibits Activated Human Osteosarcoma Adenylate Cyclase by an Action at or near the Catalytic Component F. van Valen and E. Keck Human Creatine Kinase: Isolation and Sequence Analysis of cDNA Clones for the B Subunit, Development of Subunit Specific Probes, and Determination of Gene Copy Number Gerardo Villarreal-Levy, Tony S. Ma, Sandra A. Kerner, Robert Roberts, and M. Benjamin Perryman	1099 1109
AUTHOR INDEX, Volume 144, Number 3, May 14, 1987 Biochemical and Genetic Evidence for Distinct Membrane-Bound and Cytosolic Sialic Acid O-Acetyl-esterases: Serine-Active-Site Enzymes Berman H. Higa, Sandra Diaz, and Ajit Varki Gold(III) Inhibits Activated Human Osteosarcoma Adenylate Cyclase by an Action at or near the Catalytic Component F. van Valen and E. Keck Human Creatine Kinase: Isolation and Sequence Analysis of cDNA Clones for the B Subunit, Development of Subunit Specific Probes, and Determination of Gene Copy Number Gerardo Villarreal-Levy, Tony S. Ma, Sandra A. Kerner, Robert Roberts, and M. Benjamin Perryman Further Purification of Human Pituitary-Derived Chondrocyte Growth Factor: Heparin-	1099 1109
AUTHOR INDEX, Volume 144, Number 3, May 14, 1987 Biochemical and Genetic Evidence for Distinct Membrane-Bound and Cytosolic Sialic Acid O-Acetyl-esterases: Serine-Active-Site Enzymes Herman H. Higa, Sandra Diaz, and Ajit Varki Gold(III) Inhibits Activated Human Osteosarcoma Adenylate Cyclase by an Action at or near the Catalytic Component F. van Valen and E. Keck Human Creatine Kinase: Isolation and Sequence Analysis of cDNA Clones for the B Subunit, Development of Subunit Specific Probes, and Determination of Gene Copy Number Gerardo Villarreal-Levy, Tony S. Ma, Sandra A. Kerner, Robert Roberts, and M. Benjamin Perryman Further Purification of Human Pituitary-Derived Chondrocyte Growth Factor: Heparin-Binding and Cross-Reactivity with Antiserum to Basic FGF	1099 1109 1116
AUTHOR INDEX, Volume 144, Number 3, May 14, 1987 Biochemical and Genetic Evidence for Distinct Membrane-Bound and Cytosolic Sialic Acid O-Acetyl-esterases: Serine-Active-Site Enzymes Bandra Diaz, and Ajit Varki Gold(III) Inhibits Activated Human Osteosarcoma Adenylate Cyclase by an Action at or near the Catalytic Component F. van Valen and E. Keck Human Creatine Kinase: Isolation and Sequence Analysis of cDNA Clones for the B Subunit, Development of Subunit Specific Probes, and Determination of Gene Copy Number Gerardo Villarreal-Levy, Tony S. Ma, Sandra A. Kerner, Robert Roberts, and M. Benjamin Perryman Further Purification of Human Pituitary-Derived Chondrocyte Growth Factor: Heparin-Binding and Cross-Reactivity with Antiserum to Basic FGF Catherine K. L. Too, Paul R. Murphy, Anne-Marie Hamel, and Henry G. Friesen	1099 1109 1116
AUTHOR INDEX, Volume 144, Number 3, May 14, 1987 Biochemical and Genetic Evidence for Distinct Membrane-Bound and Cytosolic Sialic Acid O-Acetyl-esterases: Serine-Active-Site Enzymes Biochemical and Genetic Evidence for Distinct Membrane-Bound and Cytosolic Sialic Acid O-Acetyl-esterases: Serine-Active-Site Enzymes Biochemical Acid Acid Acid Acid Acid Acid Acid Acid	1099 1109 1116
AUTHOR INDEX, Volume 144, Number 3, May 14, 1987 Biochemical and Genetic Evidence for Distinct Membrane-Bound and Cytosolic Sialic Acid O-Acetyl-esterases: Serine-Active-Site Enzymes Biochemical and Genetic Evidence for Distinct Membrane-Bound and Cytosolic Sialic Acid O-Acetyl-esterases: Serine-Active-Site Enzymes Biochemical And Cytosolic Sialic Acid Acid Alia Merman H. Higa, Sandra Diaz, and Ajit Varki Gold(III) Inhibits Activated Human Osteosarcoma Adenylate Cyclase by an Action at or near the Catalytic Component Fivan Valen and E. Keck Human Creatine Kinase: Isolation and Sequence Analysis of cDNA Clones for the B Subunit, Development of Subunit Specific Probes, and Determination of Gene Copy Number Gerardo Villarreal-Levy, Tony S. Ma, Sandra A. Kerner, Robert Roberts, and M. Benjamin Perryman Further Purification of Human Pituitary-Derived Chondrocyte Growth Factor: Heparin- Binding and Cross-Reactivity with Antiserum to Basic FGF Catherine K. L. Too, Paul R. Murphy, Anne-Marie Hamel, and Henry G. Friesen Concomitant Regulation of Hippocampal Calcium Antagonist Receptors and Calcium Uptake by Substance P Fiorenzo Battaini, Stefano Govoni,	1099 1109 1116 1128
AUTHOR INDEX, Volume 144, Number 3, May 14, 1987 Biochemical and Genetic Evidence for Distinct Membrane-Bound and Cytosolic Sialic Acid O-Acetyl-esterases: Serine-Active-Site Enzymes Herman H. Higa, Sandra Diaz, and Ajit Varki Gold(III) Inhibits Activated Human Osteosarcoma Adenylate Cyclase by an Action at or near the Catalytic Component F. van Valen and E. Keck Human Creatine Kinase: Isolation and Sequence Analysis of cDNA Clones for the B. Subunit, Development of Subunit Specific Probes, and Determination of Gene Copy Number Gerardo Villarreal-Levy, Tony S. Ma, Sandra A. Kerner, Robert Roberts, and M. Benjamin Perryman Further Purification of Human Pituitary-Derived Chondrocyte Growth Factor: Heparin-Binding and Cross-Reactivity with Antiserum to Basic FGF Catherine K. L. Too, Paul R. Murphy, Anne-Marie Hamel, and Henry G. Friesen Concomitant Regulation of Hippocampal Calcium Antagonist Receptors and Calcium Uptake by Substance P Fiorenzo Battaini, Stefano Govoni, Riccardo Del Vesco, Stefano Di Giovine, and Marco Trabucchi	1099 1109 1116 1128
AUTHOR INDEX, Volume 144, Number 3, May 14, 1987 Biochemical and Genetic Evidence for Distinct Membrane-Bound and Cytosolic Sialic Acid O-Acetyl-esterases: Serine-Active-Site Enzymes Herman H. Higa, Sandra Diaz, and Ajit Varki Gold(III) Inhibits Activated Human Osteosarcoma Adenylate Cyclase by an Action at or near the Catalytic Component F. van Valen and E. Keck Human Creatine Kinase: Isolation and Sequence Analysis of cDNA Clones for the B. Subunit, Development of Subunit Specific Probes, and Determination of Gene Copy Number Gerardo Villarreal-Levy, Tony S. Ma, Sandra A. Kerner, Robert Roberts, and M. Benjamin Perryman Further Purification of Human Pituitary-Derived Chondrocyte Growth Factor: Heparin-Binding and Cross-Reactivity with Antiserum to Basic FGF Catherine K. L. Too, Paul R. Murphy, Anne-Marie Hamel, and Henry G. Friesen Concomitant Regulation of Hippocampal Calcium Antagonist Receptors and Calcium Uptake by Substance P Fiorenzo Battaini, Stefano Govoni, Riccardo Del Vesco, Stefano Di Giovine, and Marco Trabucchi Recombinant Human Granulocyte Colony-Stimulating Factor Enhances Superoxide	1099 1109 1116 1128
AUTHOR INDEX, Volume 144, Number 3, May 14, 1987 Biochemical and Genetic Evidence for Distinct Membrane-Bound and Cytosolic Sialic Acid O-Acetyl-esterases: Serine-Active-Site Enzymes Herman H. Higa, Sandra Diaz, and Ajit Varki Gold(III) Inhibits Activated Human Osteosarcoma Adenylate Cyclase by an Action at or near the Catalytic Component F. van Valen and E. Keck Human Creatine Kinase: Isolation and Sequence Analysis of cDNA Clones for the B. Subunit, Development of Subunit Specific Probes, and Determination of Gene Copy Number Gerardo Villarreal-Levy, Tony S. Ma, Sandra A. Kerner, Robert Roberts, and M. Benjamin Perryman Further Purification of Human Pituitary-Derived Chondrocyte Growth Factor: Heparin-Binding and Cross-Reactivity with Antiserum to Basic FGF Catherine K. L. Too, Paul R. Murphy, Anne-Marie Hamel, and Henry G. Friesen Concomitant Regulation of Hippocampal Calcium Antagonist Receptors and Calcium Uptake by Substance P Fiorenzo Battaini, Stefano Govoni, Riccardo Del Vesco, Stefano Di Giovine, and Marco Trabucchi Recombinant Human Granulocyte Colony-Stimulating Factor Enhances Superoxide Release in Human Granulocytes Stimulated by the Chemotactic Peptide	1099 1109 1116 1128
AUTHOR INDEX, Volume 144, Number 3, May 14, 1987 Biochemical and Genetic Evidence for Distinct Membrane-Bound and Cytosolic Sialic Acid O-Acetyl-esterases: Serine-Active-Site Enzymes Herman H. Higa, Sandra Diaz, and Ajit Varki Gold(III) Inhibits Activated Human Osteosarcoma Adenylate Cyclase by an Action at or near the Catalytic Component F. van Valen and E. Keck Human Creatine Kinase: Isolation and Sequence Analysis of cDNA Clones for the B. Subunit, Development of Subunit Specific Probes, and Determination of Gene Copy Number Gerardo Villarreal-Levy, Tony S. Ma, Sandra A. Kerner, Robert Roberts, and M. Benjamin Perryman Further Purification of Human Pituitary-Derived Chondrocyte Growth Factor: Heparin-Binding and Cross-Reactivity with Antiserum to Basic FGF Catherine K. L. Too, Paul R. Murphy, Anne-Marie Hamel, and Henry G. Friesen Concomitant Regulation of Hippocampal Calcium Antagonist Receptors and Calcium Uptake by Substance P Fiorenzo Battaini, Stefano Govoni, Riccardo Del Vesco, Stefano Di Giovine, and Marco Trabucchi Recombinant Human Granulocyte Colony-Stimulating Factor Enhances Superoxide	1099 1109 1116 1128
AUTHOR INDEX, Volume 144, Number 3, May 14, 1987 Biochemical and Genetic Evidence for Distinct Membrane-Bound and Cytosolic Sialic Acid O-Acetyl-esterases: Serine-Active-Site Enzymes Herman H. Higa, Sandra Diaz, and Ajit Varki Gold(III) Inhibits Activated Human Osteosarcoma Adenylate Cyclase by an Action at or near the Catalytic Component F. van Valen and E. Keck Human Creatine Kinase: Isolation and Sequence Analysis of cDNA Clones for the B. Subunit, Development of Subunit Specific Probes, and Determination of Gene Copy Number Gerardo Villarreal-Levy, Tony S. Ma, Sandra A. Kerner, Robert Roberts, and M. Benjamin Perryman Further Purification of Human Pituitary-Derived Chondrocyte Growth Factor: Heparin-Binding and Cross-Reactivity with Antiserum to Basic FGF Catherine K. L. Too, Paul R. Murphy, Anne-Marie Hamel, and Henry G. Friesen Concomitant Regulation of Hippocampal Calcium Antagonist Receptors and Calcium Uptake by Substance P Fiorenzo Battaini, Stefano Govoni, Riccardo Del Vesco, Stefano Di Giovine, and Marco Trabucchi Recombinant Human Granulocyte Colony-Stimulating Factor Enhances Superoxide Release in Human Granulocytes Stimulated by the Chemotactic Peptide	1099 1109 1116 1128 1135
AUTHOR INDEX, Volume 144, Number 3, May 14, 1987 Biochemical and Genetic Evidence for Distinct Membrane-Bound and Cytosolic Sialic Acid O-Acetyl-esterases: Serine-Active-Site Enzymes Herman H. Higa, Sandra Diaz, and Ajit Varki Gold(III) Inhibits Activated Human Osteosarcoma Adenylate Cyclase by an Action at or near the Catalytic Component F. van Valen and E. Keck Human Creatine Kinase: Isolation and Sequence Analysis of cDNA Clones for the B Subunit, Development of Subunit Specific Probes, and Determination of Gene Copy Number Gerardo Villarreal-Levy, Tony S. Ma, Sandra A. Kerner, Robert Roberts, and M. Benjamin Perryman Further Purification of Human Pituitary-Derived Chondrocyte Growth Factor: Heparin-Binding and Cross-Reactivity with Antiserum to Basic FGF Catherine K. L. Too, Paul R. Murphy, Anne-Marie Hamel, and Henry G. Friesen Concomitant Regulation of Hippocampal Calcium Antagonist Receptors and Calcium Uptake by Substance P Fiorenzo Battaini, Stefano Govoni, Riccardo Del Vesco, Stefano Di Giovine, and Marco Trabucchi Recombinant Human Granulocyte Colony-Stimulating Factor Enhances Superoxide Release in Human Granulocytes Stimulated by the Chemotactic Peptide Seiichi Kitagawa, Akira Yuo, Lawrence M. Souza, Masaki Saito, Yasusada Miura, and Fumimaro Takaku	1099 1109 1116 1128 1135
Biochemical and Genetic Evidence for Distinct Membrane-Bound and Cytosolic Sialic Acid O-Acetyl-esterases: Serine-Active-Site Enzymes Herman H. Higa, Sandra Diaz, and Ajit Varki Gold(III) Inhibits Activated Human Osteosarcoma Adenylate Cyclase by an Action at or near the Catalytic Component F. van Valen and E. Keck Human Creatine Kinase: Isolation and Sequence Analysis of cDNA Clones for the B Subunit, Development of Subunit Specific Probes, and Determination of Gene Copy Number Gerardo Villarreal-Levy, Tony S. Ma, Sandra A. Kerner, Robert Roberts, and M. Benjamin Perryman Further Purification of Human Pituitary-Derived Chondrocyte Growth Factor: Heparin- Binding and Cross-Reactivity with Antiserum to Basic FGF Catherine K. L. Too, Paul R. Murphy, Anne-Marie Hamel, and Henry G. Friesen Concomitant Regulation of Hippocampal Calcium Antagonist Receptors and Calcium Uptake by Substance P Fiorenzo Battaini, Stefano Govoni, Riccardo Del Vesco, Stefano Di Giovine, and Marco Trabucchi Recombinant Human Granulocyte Colony-Stimulating Factor Enhances Superoxide Release in Human Granulocytes Stimulated by the Chemotactic Peptide Seiichi Kitagawa, Akira Yuo, Lawrence M. Souza, Masaki Saito, Yasusada Miura, and Fumimaro Takaku The Actions of Interferon and Antiinflammatory Agents on Induction of Indoleamine 2,3-	1099 1109 1116 1128 1135
Biochemical and Genetic Evidence for Distinct Membrane-Bound and Cytosolic Sialic Acid O-Acetyl-esterases: Serine-Active-Site Enzymes Herman H. Higa, Sandra Diaz, and Ajit Varki Gold(III) Inhibits Activated Human Osteosarcoma Adenylate Cyclase by an Action at or near the Catalytic Component F. van Valen and E. Keck Human Creatine Kinase: Isolation and Sequence Analysis of cDNA Clones for the B Subunit, Development of Subunit Specific Probes, and Determination of Gene Copy Number Gerardo Villarreal-Levy, Tony S. Ma, Sandra A. Kerner, Robert Roberts, and M. Benjamin Perryman Further Purification of Human Pituitary-Derived Chondrocyte Growth Factor: Heparin-Binding and Cross-Reactivity with Antiserum to Basic FGF Catherine K. L. Too, Paul R. Murphy, Anne-Marie Hamel, and Henry G. Friesen Concomitant Regulation of Hippocampal Calcium Antagonist Receptors and Calcium Uptake by Substance P Fiorenzo Battaini, Stefano Govoni, Riccardo Del Vesco, Stefano Di Giovine, and Marco Trabucchi Recombinant Human Granulocyte Colony-Stimulating Factor Enhances Superoxide Release in Human Granulocytes Stimulated by the Chemotactic Peptide Seiichi Kitagawa, Akira Yuo, Lawrence M. Souza, Masaki Saito, Yasusada Miura, and Fumimaro Takaku The Actions of Interferon and Antiinflammatory Agents on Induction of Indoleamine 2,3-Dioxygenase in Human Peripheral Blood Monocytes	1099 1109 1116 1128 1135
Biochemical and Genetic Evidence for Distinct Membrane-Bound and Cytosolic Sialic Acid O-Acetyl-esterases: Serine-Active-Site Enzymes Herman H. Higa, Sandra Diaz, and Ajit Varki Gold(III) Inhibits Activated Human Osteosarcoma Adenylate Cyclase by an Action at or near the Catalytic Component F. van Valen and E. Keck Human Creatine Kinase: Isolation and Sequence Analysis of cDNA Clones for the B Subunit, Development of Subunit Specific Probes, and Determination of Gene Copy Number Gerardo Villarreal-Levy, Tony S. Ma, Sandra A. Kerner, Robert Roberts, and M. Benjamin Perryman Further Purification of Human Pituitary-Derived Chondrocyte Growth Factor: Heparin- Binding and Cross-Reactivity with Antiserum to Basic FGF Catherine K. L. Too, Paul R. Murphy, Anne-Marie Hamel, and Henry G. Friesen Concomitant Regulation of Hippocampal Calcium Antagonist Receptors and Calcium Uptake by Substance P Fiorenzo Battaini, Stefano Govoni, Riccardo Del Vesco, Stefano Di Giovine, and Marco Trabucchi Recombinant Human Granulocyte Colony-Stimulating Factor Enhances Superoxide Release in Human Granulocytes Stimulated by the Chemotactic Peptide Seiichi Kitagawa, Akira Yuo, Lawrence M. Souza, Masaki Saito, Yasusada Miura, and Fumimaro Takaku The Actions of Interferon and Antiinflammatory Agents on Induction of Indoleamine 2,3-	1099 1109 1116 1128 1135

Drosophila melanogaster Contains a Set of Polypeptides Capable of Polymerizing into

Rhodamine-123 Inhibits Import of Rat Liver Mitochondrial Transhydrogenase Ira M. Lubin, Licia N. Y. Wu, Roy E. Wuthier, and Ronald R. Fisher	477
Platelet Factor XIII Is Activated by Calpain Yoshihiro Ando, Sadao Imamura, Yoko Yamagata, Aiko Kitahara, Hiroo Saji, Takashi Murachi, and Reiji Kannagi	484
Acquisition of Thermotolerance during Development of Blastocladiella emersonii	707
Aline M. Silva, M. Helena Juliani, J. Janduí de Costa,	
and M. Christina M. Bonato	491
Covalent Hybrids of Ovomucoid Third Domains Made from One Synthetic and One Natural	
Peptide Chain Maciej Wieczorek, Soon Jae Park, and Michael Laskowski, Jr.	499
Copper and the Estradiol Receptor Jerry H. Fishman and Jack Fishman	505
Epidermal Growth Factor Stimulates Tyrosine Phosphorylation of Human Glucocorticoid	
Receptor in Cultured Cells Kanury V. S. Rao and C. Fred Fox	512
Relative Affinity of Ca(II) and Mg(II) Ions for Human and Bovine Prothrombin and Fragment 1 David W. Deerfield II, Dean L. Olson, Pola Berkowitz,	
Fragment 1 David W. Deerfield II, Dean L. Olson, Pola Berkowitz, Karl A. Koehler, Lee G. Pedersen, and Richard G. Hiskey	520
Separation of Two Isozymes of Polyamine Oxidase from Murine L1210 Leukemia Cells	340
Paul R. Libby and Carl W. Porter	528
Multiple Isoforms of ADP-Ribosylated G-like Proteins from Mammalian Thyroid	0_0
Membranes William J. Deery, Fernando Rebeiro-Neto, and James B. Field	536
Volume 144, Number 2, April 29, 1987	
AUTHOR INDEX, Volume 144, Number 2, April 29, 1987	iii
A Form of Human Basic Fibroblast Growth Factor with an Extended Amino Terminus	
Andreas Sommer, Michael T. Brewer, Robert C. Thompson, David Moscatelli,	542
Marco Presta, and Daniel B. Rifkin Redistribution of Protein Kinase C in Pancreatic Acinar Cells Stimulated with Cerulein or	543
Carbachol Tatsuo Ishizuka, Yasufumi Ito, Kazuo Kajita, Kiyoshi Miura,	
Seiji Nagao, Koh-ichi Nagata, and Yoshinori Nozawa	551
An in Vitro System Derived from Friend Erythroleukemia Cells to Study Messenger RNA	
Stability I. Sunitha and Lawrence I. Slobin	560
Solubilization and Reconstitution of Acylcoenzyme A:Estradiol-17\beta Acyltransferase	
F. T. Lee and J. B. Adams	569
Hepatic DNA and RNA Adduct Formation from the Carcinogen 7-Hydroxymethyl-12-	
methylbenz[a]anthracene and Its Electrophilic Sulfuric Acid Ester Metabolite in Preweanling Rats and Mice Young-Joon Surh, Chen-Ching Lai,	
James A. Miller, and Elizabeth C. Miller	576
Stimulation of Procollagenase Synthesis Parallels Increases in Cellular Procollagenase	510
mRNA in Human Articular Chondrocytes Exposed to Recombinant Interleukin 1β or	
Phorbol Ester Mary L. Stephenson, Mary B. Goldring, James R. Birkhead,	
Stephen M. Krane, Hans J. Rahmsdorf, and Peter Angel	583
Decreased Incorporation of the Photoaffinity Probe $8N_3-[\gamma^{-32}P]GTP$ into a 45-kDa Protein	
in Lung Tumors Kurt A. Droms, Boyd E. Haley, and Alvin M. Malkinson	591
Further Studies on the Specificity of Diacylglycerol for Protein Kinase C Activation Masayoshi Go, Kazuo Sekiguchi, Hideaki Nomura, Ushio Kikkawa,	
masayosni Go, Kazuo Sekiguchi, Maeaki Nomura, Osnio Kikkawa, and Yasutomi Nishizuka	598
Saturated and trans-Unsaturated Fatty Acids Elicit High Levels of Superoxide Generation in	570
Intact and Cell-Free Preparations of Neutrophils Torahiko Tanaka,	
Shiro Kanegasaki, Ryu Makino, Tetsutaro Iizuka,	
and Yuzuru Ishimura	606
A Novel Yeast Secretion Vector Utilizing Secretion Signal of Killer Toxin Encoded on the	
Yeast Linear DNA Plasmid PGKL1 Masao Tokunaga, Naomi Wada, and Fumio Hishinuma	613
Down-Regulation of Protein Kinase C in Rat Glioma C6 Cells: Effects on the β-Adrenergic	013
Receptor-Coupled Adenylate Cyclase Peter H. Fishman, Molly Sullivan,	
and Jitendra Patel	620

Phosphorylation of Branched-Chain 2-Oxo Acid Denydrogenase Complex in Isolated	
Hepatocytes Sheelagh M. A. Jones, Alistair T. R. Sim, D. Grahame Hardie,	628
and Stephen J. Yeaman The Carcinoembryonic Antigen (CEA) Contains Multiple Immunoglobulin-like Domains	028
Shinzo Oikawa, Seiichi Imajo, Teruhisa Noguchi,	
Goro Kosaki, and Hiroshi Nakazato	634
The Anesthetic Nitrous Oxide Affects Dioxygen Utilization by Bovine Heart and Bean Seed	054
Mitochondrial Particles Sharon Sowa, Aichun Dong, Eric E. Roos,	
and Winslow S. Caughey	643
A Direct Evidence for the Involvement of Poly(A) in Protein Synthesis	0.0
Harvey N. Rubin and Mostafa N. Halim	649
Evolution of Human von Willebrand Factor: cDNA Sequence Polymorphisms, Repeated	•
Domains, and Relationship to von Willebrand Antigen II	
Beverley B. Shelton-Inloes, George J. Broze, Jr.,	
Joseph P. Miletich, and J. Evan Sadler	657
Synthesis of Alkyl-Ether Glycerophospholipids in Rat Glomerular Mesangial Cells:	
Evidence for Alkyldihydroxyacetone Phosphate Synthase Activity	
Anthony Zanglis and Elias A. Lianos	666
The Effects of Insulin-like Growth Factor-I and Insulin on Placental Lactogen Production by	
Human Term Placental Explants B. Bhaumick, E. P. Dawson,	
and R. M. Bala	674
Phospholipase A ² Activation in Chemotactic Peptide-Stimulated HL60 Granulocytes:	
Synergism between Diacylglycerol and Ca24 in a Protein Kinase C-Independent	
Mechanism M. Motasim Billah and Marvin I. Siegel	683
Mechanism of Oxidation of 1-Methyl-4-phenyl-2,3-dihydropyridinium (MPDP ⁺)	
W. Korytowski, C. C. Felix, and B. Kalyanaraman	692
A M _r 190,000 Glycoprotein Phosphorylated on Tyrosine Residues in Epidermal Growth	
Factor-Stimulated KB Cells Is the Product of the C-erbB-2 Gene	
Takashi Kadowaki, Masato Kasuga, Kazuyuki Tobe, Fumimaro Takaku,	
Eisuke Nishida, Hikoichi Sakai, Shigeo Koyasu, Ichiro Yahara, Kumao Toyoshima, Tadashi Yamamoto, and Tetsu Akiyama	699
Human Fibroblast-Derived Growth Factor Is a Mitogen and Chemoattractant for	077
Endothelial Cells Daniel T. Connolly, Barry L. Stoddard,	
Nikos K. Harakas, and Joseph Feder	705
Calcitriol Increases Ca ²⁺ -ATPase Activity Cobi Lidor and Samuel Edelstein	713
Biochemical and Proton NMR Characterization of the Isolated Functional β -Subunit of	
Coupling Factor 1 from Spinach Chloroplasts Madeleine Roux-Fromy,	
Jean-Michel Neumann, François Andre, Gérard Berger, Guy Girault,	
Jean-Michel Galmiche, and René Remy	718
Measurement and Distribution of Vasopressin-Converting Aminopeptidase Activity in Rat	
Brain J. Peter H. Burbach, Dirk Terwel, and Jos L. M. Lebouille	726
Specific Inhibition of Phorbol Ester and DiC8-Induced Histamine Release from Human	
Basophils by the Protein Kinase C Inhibitors, H-7 and H-9 D. O. Thueson,	
J. A. Kennedy, C. D. Wright, and M. C. Conroy	732
Possible Involvement of Inositol Phosphates and Calmodulin in Calcitonin-Induced	
Stimulation of Phosphate Transport in LLC-PK ₁ Cells Yoshikazu Kinoshita,	
Masaaki Fukase, Toshiyuki Yamatani, Tsutomu Chiba, Masamichi Nakai,	741
Masaharu Tsutsumi, and Takuo Fujita Autodegradation of Lysosomal Cysteine Proteinases Eiki Kominami,	741
Autodegradation of Lysosomal Cysteine Proteinases Eiki Kominami, Toshifumi Tsukahara, Yoshiaki Bando, and Nobuhiko Katunuma	749
Induction of Ornithine Decarboxylase Activity in Mouse Tissues by Phorbol Ester Is	177
Effectively Blocked by Methylglyoxal bis(Butylamidinohydrazone)	
Hiroshige Hibasami, Tetsuya Tsukada, Satoru Maekawa,	
Masaki Sakurai, and Kunio Nakashima	757
VITTER DESIGN MARKET MARKET AND ASSESSED A LOSS ASSESSED A LOSS ASSESSED ASSESSEDA ASSESSED ASSESSED ASSESSED ASSESSED ASSESSED ASSESSED ASSESSEDA ASSESSED ASSESSED ASSESSED ASSESSED ASSESSED ASSESSED ASSESSEDA	

from X-Linked Hypophosphatemic (Hyp) Mice Yoshikazu Kinoshita,	
Masaaki Fukase, Masaki Nakada, and Takuo Fujita	763
Desensitization of Renal Vasopressin-Stimulated Adenylate Cyclase by a Vasopressor and	103
Antidiuretic Antagonist $[1-(\beta-Mercapto-\beta,\beta-cyclopentamethylenepropionic acid),2-$	
(O-ethyl)-p-tyrosine,4-valine arginine Vasopressin Potang Chang	
	770
Electron Spin Resonance (ESR) Studies of Skeletal Protein Interactions in Human	,,,
Erythrocyte Membranes Exposed to Polyanions and in Membranes Prepared from	
Inositol Hexaphosphate (IHP)-Incorporated Low-Affinity Erythrocytes	
Joseph W. Wyse, Robin Barker, Robert S. Franco, Orlando Martelo,	
and D. Allan Butterfield	779
The Interaction between Nuclear Topoisomerase II Activity from Human Leukemia Cells,	
Exogenous DNA, and 4'-(9-Acridinylamino)methanesulfon-m-anisidide (m-AMSA)	
or 4-(4,6-O-Ethylidene-β-D-glucopyranoside) (VP-16) Indicates the Sensitivity of the	
Cells to the Drugs Elihu H. Estey, Lynn Silberman, Miloslav Beran,	
Borje S. Andersson, and Leonard A. Zwelling	787
Lack of Correlation between Calcium Mobilization and Respiratory Burst Activation	
Induced by Chemotactic Factors in Rabbit Polymorphonuclear Leukocytes	
Kaija T. Hartiala, Ian G. Scott, Matti K. Viljanen, and Karl E. O. Akerman	794
Integrity of the C-Terminal Part of Tyrosine Aminotransferase Revealed by an Anti-peptide	
Serum J. B. Dietrich, G. Genot, and G. Beck	801
A Membrane-Bound Calcium-Dependent Protease in Yeast α-Cell Cleaving on the	
Carboxyl Side of Paired Basic Residues Kensaku Mizuno, Tomoko Nakamura,	
Katsumi Takada, Shumpei Sakakibara, and Hisayuki Matsuo	807
Effects of Dietary Selenium on Lipid Peroxidation, Mitochondrial Function, and Protein	
Profiles in the Heart of the Myopathic Syrian Golden Hamster (BIO 14.6)	
I. Siraj Jamall, Dipak Haldar, and Axel G. Wadewitz	815
Thrombin-Induced Transfer of Arachidonic Acid in Human Platelets Is Not Inhibited by	010
Trifluoperazine Vhundi G. Mahadevappa	821
A New Enzymatic Pathway of Citrullinogenesis in Murine Hemopoietic Cells	
Elke Schneider, Pierre P. Kamoun, Danièle Migliore-Samour, and Michel Dy	829
Circular Dichroism Study of Bacteriorhodopsin-Lipid Interaction T. Nishiya,	
I. Tabushi, and A. Maeda	836
Combined Study of ¹ H-Magnetic Resonance Imaging and Depth-Selected, EKG-Gated	050
³¹ P-Magnetic Resonance Spectroscopy of the Heart in Vivo	
Teruhiko Toyo-Oka, Kuniaki Nagayama, Masahiro Umeda, Shutaro Ogawa,	
Keiji Eguchi, Saichi Hosoda, and Tsuneaki Sugimoto	841
Direct Evidence for Chloride-Dependent Volume Reduction in Macrocytic Sheep	0-1
Reticulocytes Peter K. Lauf and Hans Bauer	849
Mono(ADP-ribosyl)ation of Ca ²⁺ -Dependent ATPase in Rabbit Skeletal Muscle	0+2
Sarcoplasmic Reticulum and the Effect of Poly L-Lysine N. Hara, K. Mishima,	
M. Tsuchiya, Y. Tanigawa, and M. Shimoyama	856
The Tumor Promoter Tetradecanoylphorbol Acetate (TPA) Elicits the Redistribution of	050
Zinc in Subcellular Fractions of Rabbit Thymocytes Measured by X-Ray Fluorescence	
Péter Csermely, Sándor Gueth, and János Somogyi	863
Species Differences between Rat and Rabbit Renal Na ⁺ /H ⁺ Exchangers	005
Thomas Friedrich, Jutta Sablotni, and Gerhard Burckhardt	869
	003
Von Willebrand Factor Shares a Distinctive Cysteine-Rich Domain with Thrombospondin and Procollagen Lois T. Hunt and Winona C. Barker	074
	876
In Vitro Production and Characterization of Low Molecular Weight Forms of Calcitonin	
Gene-Related Peptide Immunoreactivity from Rat Thyroid	002
Peter K. Mulderry, Mohammad A. Ghatei, and Stephen R. Bloom Purification of a Bovine Liver S6 Kinase Diane Tabarini,	883
Antonio Garcia de Herreros, Julia Heinrich, and Ora M. Rosen	891
Antonio Garcia de Herreros, juna Henrich, ana Ora M. Rosen	ひフエ

Stimulation of Leucine Transport by a Phorbol Ester through Activation of Protein Kinase C and Na ⁺ /H ⁺ Exchanger Yasuhide Mitsumoto and Tetsuro Mohri Pertussis Toxin Facilitates Secretagogue-Induced Catecholamine Release from Cultured	900
Bovine Adrenal Chromaffin Cells Teruo Tanaka, Hiromitsu Yokohama, Manabu Negishi, Hideya Hayashi, Seiji Ito, and Osamu Hayaishi	907
Angiotensin Converting Enzyme Predominates in the Inner Cortex and Medulla of the Rat Kidney Fumihiko Ikemoto, Gyeong Bu Song, Munechika Tominaga, Yoshiharu Kanayama, and Kenjiro Yamamoto	915
A Proton Magnetic Resonance Study of the Effects of Polyamine and Divalent Metal Ions on Diadenosine 5',5"'-P ¹ ,P ⁴ -Tetraphosphate Base Stacking	
Richard B. Westkaemper Preparation and Characterization of Monoclonal Antibodies Specific for G ^O C ^O dGdCG ^O C ^O Duplex with High-Anti Conformation Kazunobu Miura, Miho Saito,	922
Teiji Itoh, Eiko Ohtsuka, Seiichi Uesugi, Bok Luel Lee, and Morio Ikehara Caldesmon Regulates the Three-Dimensional Contraction (Myosin-Dependent Contraction of the Actin Binding Protein-Induced Actin Gel)	930
Masao Nomura and Kenji Sobue	936
Auxin-Regulated Changes in Protein Phosphorylation in Pea Epicotyls	
A. S. N. Reddy, S. Chengappa, and B. W. Poovaiah	944
No Direct Involvement of Plasma Membrane Divalent Cation-Activated Adenosine Triphosphatase in Histamine Release from Rat Mast Cells	
Tatsuhisa Yamashita and Kimiko Saito	951
Chemically Induced Parkinson's Disease: Intermediates in the Oxidation of 1-Methyl-4-	
phenyl-1,2,3,6-tetrahydropyridine to the 1-Methyl-4-phenyl Pyridinium Ion J. N. Chacon, M. R. Chedekel, E. J. Land, and T. G. Truscott	957
M ₂ Muscarinoceptor-Associated Ionophore at the Cat Adrenal Medulla Richardo Borges, Juan J. Ballesta, and Antonio G. García	965
Biochemical Properties Associated with the Immortalizing Domain of the Large T Protein of Polyomavirus **Ikram Guizani, Philippe Clertant, and François Cuzin**	973
Protein and Lipid Disturbances in Rat Liver Microsomal Membranes after Bile Duct	913
Ligation Laura Bengochea, Graciela Ouviña, Patricia Sozzani,	222
and Abraham Lemberg	980
The Digestion of Cell Surface-Associated Glycosaminoglycans by Crude and Purified Flavobacterium heparinum Enzymes: Disparate Effects on Cell Adhesion	
Michael Piepkorn, Peter Hovingh, Roberta Barstad, and Alfred Linker	986
Lipoxin Synthesis by Arachidonate 5-Lipoxygenase Purified from Porcine Leukocytes	
Natsuo Ueda, Shozo Yamamoto, Brian J. Fitzsimmons, and Joshua Rokach Isolation of Hepatocyte Stimulating Factor from Human Monocytes	996
Gerald M. Fuller, Robert J. Bunzel, Barry M. Woloski, and Sang-Uk Nham	1003
Genetic Heterogeneity of Steroid Sulfatase Deficiency Revealed with cDNA for Human	
Steroid Sulfatase Jon T. Conary, Gerhard Lorkowski, Bernhard Schmidt, Regina Pohlmann, Gerhard Nagel, Helmut E. Meyer, Cristiane Krentler,	
Jan Cully, Andrej Hasilik, and Kurt von Figura	1010
Enriched Autonomously Replicating Sequences in a Nuclear Matrix-DNA Complex	
Isolated from Synchronized HeLa Cells Maria del Pilar Aguinaga,	
Charlese E. Kiper, and Manuel S. Valenzuela	1018
Translocation of Diacylglycerol Kinase in Response to Chemotactic Peptide and Phorbol	
Ester in Neutrophils Jun-ichi Ishitoya, Akio Yamakawa, and Tadaomi Takenawa	1025
Prevention of Adriamycin-Induced Interphase Death by 3-Aminobenzamide and Nicotin-	1023
amide in a Human Promyelocytic Leukemia Cell Line	
Akihiko Tanizawa, Masaru Kubota, Tetsuya Takimoto, Yuichi Akiyama,	
Shiro Seto, Yukio Kiriyama, and Haruki Mikawa	1031
Sulfinyl Radical Formation from the Reaction of Cysteine and Glutathione Thiyl Radicals	
with Molecular Oxygen Michael D. Sevilla, David Becker, Steven Swarts, and John Herrington	1037
and some the trigger	1001

Sequence Homology in the Metalloproteins: Purple Acid Phosphatase from Beef Spleen and	
Uteroferrin from Porcine Uterus Donald F. Hunt, John R. Yates III,	
Jeffrey Shabanowitz, Nian-Zhou Zhu, Teresa Zirino, Bruce A. Averill,	
Silvia T. Daurat-Larroque, Jaiprakash G. Shewale, R. Michael Roberts,	
and Keith Brew	1154
Effects of Sialagogues on the Syntheses of Polyamines and DNA in Murine Parotid Gland	
Kenji Kikuchi, Mizuho Nishino, and Hideo Inoue	1161
A Requirement for Cholesterol for Phorbol Ester-Induced Adhesion of a Human Monocyte-	
like Cell Line M. Esfahani, S. Hathotuwegama, A. Kalenak,	
L. Scerbo, and H. M. Brown	1167
Purification of the Catalytic Subunit of Protein Phosphatase-1 from Drosophila	
	1175
Different Mechanisms Control Developmental Activation of Transcription of Genes	11.0
Subject to Identical Hormonal Regulation in Adult Liver Robin Rothrock,	
Kai-Lin Lee, Kenneth R. Isham, Alfred C. Johnson, and Francis T. Kenney	1192
GDP\$S Enhances the Activation of Phospholipase C Caused by Thrombin in Human	1102
Platelets: Evidence for Involvement of an Inhibitory GTP-Binding Protein	
Eckard Oberdisse and Eduardo G. Lapetina	1188
Suppression of the EGF-Dependent Induction of c-myc Proto-Oncogene Expression by	
Transforming Growth Factor β in a Human Breast Carcinoma Cell Line	
Jose A. Fernandez-Pol, Venugopal D. Talkad,	
Dennis J. Klos, and Paul D. Hamilton	1197
Chain-Shortening of Prostaglandin $F_{2\alpha}$ by Rat Liver Peroxisomes Ulf Diczfalusy,	
Stefan E. H. Alexson, and Jan I. Pedersen	1206
Potent GnRH Agonists Containing L-Amino Acid Derivatives in the Six Position	1200
János Sepródi, Judit Érchegyi, Zsolt Vadász, István Teplán, Imre Mező,	
Béla Kanyicska, Magdolna Kovács, and Sándor Vigh	1214
Heterogeneity in High-Performance Liquid Chromatography of a Variant Surface	1217
Glycoprotein of Trypanosoma brucei Daniel Tetaert, Véronique Gomes, Guillemette Huet-Duvillier, Dominique Demeyer, Marylène Hublart,	
Guittemette Huet-Duvittiet, Dominique Demeyet, mai yiene Hubiiri, Arnold Boersma, and Pierre Degand	1222
	1224
The Bioflavonoid Quercetin Inhibits Neutrophil Degranulation, Superoxide Production, and the Phosphorylation of Specific Neutrophil Proteins	
Warren D. Blackburn, Jr., Louis W. Heck, and Robert W. Wallace	1220
warren D. Diuckourn, Jr., Louis W. Neck, and Robert W. Wallace	1227
Glucose Tolerance Factor Stimulates 3-O-Methylglucose Transport into Isolated Rat	
Adipocytes Masakuni Tokuda, Atsunori Kashiwagi, Eiji Wakamiya,	1007
Tatsuya Oguni, Makoto Mino, and Hiroyuki Kagamiyama	1237
Antigen- and Ionophore-Stimulated Synthesis of Platelet Activating Factor by the Cloned	
Mast Cell Line, MC9 Mark W. Musch, M. Motasim Billah,	10.10
and Marvin I. Siegel	1243
Immunochemical Similarity between a Gastric Mucosa Non-pepsin Acid Proteinase and	
Neutrophil Cathepsin E of the Rat Satoshi Yonezawa, Tetsuya Tanaka,	
Norio Muto, and Satoru Tani	1251
Human Liver cDNA Clones Encoding Proteolipid Subunit 9 of the Mitochondrial ATPase	
Complex Leigh B. Farrell and Phillip Nagley	1257
Concanavalin A Prevents Phorbol-Mediated Redistribution of Protein Kinase C and	
β-Adrenergic Receptors in Rat Glioma C6 Cells Jitendra Patel	
and Shouki Kassis	1265
Stimulation of Synaptosomal ATP-Dependent Ca ²⁺ -Uptake by N-Ethylmaleimide	40-0
Chandrashekhar R. Gandhi and David H. Ross	1273
Immunochemical Characterization of Juvenile Hormone Esterase from Different Species of	100-
Lepidoptera Mietek Wozniak and Davy Jones	1281
A Novel Fragmentation of Human Myelin Basic Protein: Identification of Phosphorylated	
Domains KF. Jesse Chan, Mario A. Moscarello, Gerald L. Stoner,	1005
and Henry deF. Webster	1287

Dean A. Stetler, Morris Reichlin, Cheston M. Berlin, and Samson T. Jacob	1290
Phospholipid Metabolism of a Stimulated Murine T Cell Clone Berthold Behl,	
Margarete Goppelt-Strübe, Beate Schwinzer,	
Karsten Wiebe, and Klaus Resch	1303
Effects of the Protein Kinase C Inhibitor H-7 and Calmodulin Antagonist W-7 on Superoxide	
Production in Growing and Resting Human Histiocytic Leukemia Cells (U937)	
Motoko Shibanuma, Toshio Kuroki, and Kiyoshi Nose	1313
GTP Requirement for Inositol-1,4,5-trisphosphate-Induced Ca ²⁺ Release from	
Sarcoplasmic Reticulum in Smooth Muscle Kooichi Saida	
and Cornelis van Breemen	1317
Phosphorylation of Protamines by Protein Kinase C: Involvement of Sites Which Are	101.
Phosphorylated in Vivo and Are Not Affected by cAMP-Dependent Protein Kinase	
Stefano Ferrari and Lorenzo A. Pinna	1324
The Human ApoB-100 Gene: ApoB-100 Is Encoded by a Single Copy Gene in the Human	1327
Genome K. Higuchi, J. C. Monge, N. Lee, S. W. Law, H. B. Brewer, Jr.,	1222
A. Y. Sakaguchi, and S. L. Naylor	1332
The Phosphorylation Sites of the B_2 Chain of Bovine α -Crystallin Raúl Chiesa,	
Mary Ann Gawinowicz-Kolks, Norman J. Kleiman, and Abraham Spector	1340
ERRATA	
Volume 141, Number 1, November 26, 1986: Rafael Apitz-Castro, Eliades Ledezma,	
Javier Escalante, and Mahendra Kumar Jain, "The Molecular Basis of the	
Antiplatelet Action of Ajoene: Direct Interaction with the Fibrinogen Receptor,"	
pp. 145-150	1348
Volume 142, Number 3, February 13, 1987: Marina Marini, Giovanna Zunica, Gian	
Paolo Bagnara, and Claudio Franceschi, "Effect of Vanadate on PHA-Induced	
	1348
Volume 142, Number 3, February 13, 1987: Yuzuru Eto, Tomoko Tsuji, Misako	
Takezawa, Satoshi Takano, Yasunori Yokogawa, and Hiroshiro Shibai,	
"Purification and Characterization of Erythroid Differentiation Factor (EDF)	
Isolated from Human Leukemia Cell Line THP-1," pp. 1095–1103	1349
	1347
Volume 143, Number 2, March 13, 1987: Christine Clamagirand, Maryse Camier,	
Christine Fahy, Chantal Clavreul, Christophe Créminon, and Paul Cohen,	
"C-Terminally Extended Ocytocin and Pro-ocytocin: Neurophysin Peptide	
Converting Enzyme in Bovine Corpus Luteum," pp. 789-796	1350
Author Index for Volume 144	1351
Volume 145, Number 1, May 29, 1987	
AUTHOR INDEX, Volume 145, Number 1, May 29, 1987	
	ii
	ii
Abnormal Protein Metabolism in Skin Fibroblasts in Vitro from Patients with Duchenne	ii
Abnormal Protein Metabolism in Skin Fibroblasts in Vitro from Patients with Duchenne Muscular Dystrophy H. Peter Rodemann, Klaus Bayreuther,	
Abnormal Protein Metabolism in Skin Fibroblasts in Vitro from Patients with Duchenne Muscular Dystrophy H. Peter Rodemann, Klaus Bayreuther, and Erich Schumacher	ii 1
Abnormal Protein Metabolism in Skin Fibroblasts in Vitro from Patients with Duchenne Muscular Dystrophy H. Peter Rodemann, Klaus Bayreuther, and Erich Schumacher In Situ Hybridization of Oxytocin Messenger RNA: Macroscopic Distribution and	
Abnormal Protein Metabolism in Skin Fibroblasts in Vitro from Patients with Duchenne Muscular Dystrophy H. Peter Rodemann, Klaus Bayreuther, and Erich Schumacher In Situ Hybridization of Oxytocin Messenger RNA: Macroscopic Distribution and Quantitation in Rat Hypothalamic Cell Groups J. Peter H. Burbach,	1
Abnormal Protein Metabolism in Skin Fibroblasts in Vitro from Patients with Duchenne Muscular Dystrophy H. Peter Rodemann, Klaus Bayreuther, and Erich Schumacher In Situ Hybridization of Oxytocin Messenger RNA: Macroscopic Distribution and Quantitation in Rat Hypothalamic Cell Groups J. Peter H. Burbach, Theodora A. M. Voorhuis, Hubert H. M. van Tol, and Richard Ivell	
Abnormal Protein Metabolism in Skin Fibroblasts in Vitro from Patients with Duchenne Muscular Dystrophy H. Peter Rodemann, Klaus Bayreuther, and Erich Schumacher In Situ Hybridization of Oxytocin Messenger RNA: Macroscopic Distribution and Quantitation in Rat Hypothalamic Cell Groups J. Peter H. Burbach, Theodora A. M. Voorhuis, Hubert H. M. van Tol, and Richard Ivell Polyunsaturated Fatty Acids Augment Free Radical Generation in Tumor Cells in Vitro	1
Abnormal Protein Metabolism in Skin Fibroblasts in Vitro from Patients with Duchenne Muscular Dystrophy H. Peter Rodemann, Klaus Bayreuther, and Erich Schumacher In Situ Hybridization of Oxytocin Messenger RNA: Macroscopic Distribution and Quantitation in Rat Hypothalamic Cell Groups J. Peter H. Burbach, Theodora A. M. Voorhuis, Hubert H. M. van Tol, and Richard Ivell Polyunsaturated Fatty Acids Augment Free Radical Generation in Tumor Cells in Vitro U. N. Das, M. E. Begin, G. Ells, Y. S. Huang, and D. F. Horrobin	1
Abnormal Protein Metabolism in Skin Fibroblasts in Vitro from Patients with Duchenne Muscular Dystrophy H. Peter Rodemann, Klaus Bayreuther, and Erich Schumacher In Situ Hybridization of Oxytocin Messenger RNA: Macroscopic Distribution and Quantitation in Rat Hypothalamic Cell Groups J. Peter H. Burbach, Theodora A. M. Voorhuis, Hubert H. M. van Tol, and Richard Ivell Polyunsaturated Fatty Acids Augment Free Radical Generation in Tumor Cells in Vitro U. N. Das, M. E. Begin, G. Ells, Y. S. Huang, and D. F. Horrobin 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) Enhances Antibody Production and Protein	1
Abnormal Protein Metabolism in Skin Fibroblasts in Vitro from Patients with Duchenne Muscular Dystrophy H. Peter Rodemann, Klaus Bayreuther, and Erich Schumacher In Situ Hybridization of Oxytocin Messenger RNA: Macroscopic Distribution and Quantitation in Rat Hypothalamic Cell Groups J. Peter H. Burbach, Theodora A. M. Voorhuis, Hubert H. M. van Tol, and Richard Ivell Polyunsaturated Fatty Acids Augment Free Radical Generation in Tumor Cells in Vitro U. N. Das, M. E. Begin, G. Ells, Y. S. Huang, and D. F. Horrobin 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) Enhances Antibody Production and Protein Kinase Activity in Murine B Cells Caroline M. Kramer, Kirk W. Johnson,	1 10 15
Abnormal Protein Metabolism in Skin Fibroblasts in Vitro from Patients with Duchenne Muscular Dystrophy H. Peter Rodemann, Klaus Bayreuther, and Erich Schumacher In Situ Hybridization of Oxytocin Messenger RNA: Macroscopic Distribution and Quantitation in Rat Hypothalamic Cell Groups J. Peter H. Burbach, Theodora A. M. Voorhuis, Hubert H. M. van Tol, and Richard Ivell Polyunsaturated Fatty Acids Augment Free Radical Generation in Tumor Cells in Vitro U. N. Das, M. E. Begin, G. Ells, Y. S. Huang, and D. F. Horrobin 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) Enhances Antibody Production and Protein Kinase Activity in Murine B Cells Caroline M. Kramer, Kirk W. Johnson, Robert K. Dooley, and Michael P. Holsapple	1
Abnormal Protein Metabolism in Skin Fibroblasts in Vitro from Patients with Duchenne Muscular Dystrophy H. Peter Rodemann, Klaus Bayreuther, and Erich Schumacher In Situ Hybridization of Oxytocin Messenger RNA: Macroscopic Distribution and Quantitation in Rat Hypothalamic Cell Groups J. Peter H. Burbach, Theodora A. M. Voorhuis, Hubert H. M. van Tol, and Richard Ivell Polyunsaturated Fatty Acids Augment Free Radical Generation in Tumor Cells in Vitro U. N. Das, M. E. Begin, G. Ells, Y. S. Huang, and D. F. Horrobin 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) Enhances Antibody Production and Protein Kinase Activity in Murine B Cells Caroline M. Kramer, Kirk W. Johnson, Robert K. Dooley, and Michael P. Holsapple Isolation of a cDNA Clone for Human Cytochrome c1 from a \(\lambda\)gt11 Expression Library	1 10 15
Abnormal Protein Metabolism in Skin Fibroblasts in Vitro from Patients with Duchenne Muscular Dystrophy H. Peter Rodemann, Klaus Bayreuther, and Erich Schumacher In Situ Hybridization of Oxytocin Messenger RNA: Macroscopic Distribution and Quantitation in Rat Hypothalamic Cell Groups J. Peter H. Burbach, Theodora A. M. Voorhuis, Hubert H. M. van Tol, and Richard Ivell Polyunsaturated Fatty Acids Augment Free Radical Generation in Tumor Cells in Vitro U. N. Das, M. E. Begin, G. Ells, Y. S. Huang, and D. F. Horrobin 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) Enhances Antibody Production and Protein Kinase Activity in Murine B Cells Caroline M. Kramer, Kirk W. Johnson, Robert K. Dooley, and Michael P. Holsapple Isolation of a cDNA Clone for Human Cytochrome c1 from a \(\lambda\)gt11 Expression Library Morimitsu Nishikimi, Hiroshi Suzuki, Shigeo Ohta, Takeshi Sakurai,	1 10 15 25
Abnormal Protein Metabolism in Skin Fibroblasts in Vitro from Patients with Duchenne Muscular Dystrophy H. Peter Rodemann, Klaus Bayreuther, and Erich Schumacher In Situ Hybridization of Oxytocin Messenger RNA: Macroscopic Distribution and Quantitation in Rat Hypothalamic Cell Groups J. Peter H. Burbach, Theodora A. M. Voorhuis, Hubert H. M. van Tol, and Richard Ivell Polyunsaturated Fatty Acids Augment Free Radical Generation in Tumor Cells in Vitro U. N. Das, M. E. Begin, G. Ells, Y. S. Huang, and D. F. Horrobin 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) Enhances Antibody Production and Protein Kinase Activity in Murine B Cells Caroline M. Kramer, Kirk W. Johnson, Robert K. Dooley, and Michael P. Holsapple Isolation of a cDNA Clone for Human Cytochrome c1 from a \(\lambda\)gt11 Expression Library	1 10 15

Autoantibodies against RNA Polymerase I in Scleroderma and Sjögren's Syndrome Scera

DAPI-pUC8 Complex: A Tool to Investigate Biological Effects of Nucleic Acid-Drug Interaction Giorgio Palu, Sebastiano Valisena, Maria Luisa Barcellona,	
	40
Lanfranco Masotti, and Giovanni A. Meloni Changes in OD at 235 nm Do Not Correspond to the Polymerization Step of Actin	40
Ingeborg Merkler, Christos Stournaras, and Heinz Faulstich	46
Tissue Distribution of mRNAs Encoding the α Isoforms and β Subunit of Rat Na ⁺ , K ⁺ -	70
ATPase Regina M. Young and Jerry B Lingrel	52
The Metabolism of Inositol 4-Monophosphate in Rat Mammalian Tissues	~~
A. Delvaux, J. E. Dumont, and C. Erneux	59
Calcium Transients in Human Platelets Monitored by Aequorin, fura-2, and quin-2: Effects	
of Protein Kinase C Activation and Inhibition Paul Erne, Mike Schachter,	
Doriano Fabbro, Colette M. M. Miles, and Peter S. Sever	66
The 180 kDa Polypeptide Contains the DNA-Binding Domain of RNA Polymerase II	
Ronald Y. Chuang and Linda F. Chuang	73
Localization of α-Inhibin-31 in Rodent Testis and Brain by Immunocytochemical Procedure	
and Western Blot Analysis Yun-Fai Lau and Choh Hao Li	81
Binding and Action of Glucagon in Isolated Adipocytes from Cortisol-Treated Rats	
C. Calle, P. Sanchez-Casas, M. A. Simón, and P. Mayor	90
Clustering of Undermethylated CCGG and GCGC Sequences in the 5' Region of the Ha-	
RAS-1 Oncogene of Human Leukemic K562 Cells Rafaella Barbieri,	0.0
Roberta Piva, Daniele Buzzoni, Stefano Volinia, and Roberto Gambari	96
Uptake of Thyroid Hormones (L-T3 and L-T4) by Isolated Rat Adipocytes	105
L. C. Landeta, T. González-Padrones, and C. Rodriguez-Fernández	105
Cyclosporin A Inhibits Kinase C-Independent Activation of the Na ⁺ /H ⁺ Exchanger by PDGF and Vanadate Thomas O. Daniel and Harlan E. Ives	111
Purification of 5'-Nucleotidase from Human Placenta after Release from Plasma	111
Membranes by Phosphatidylinositol-Specific Phospholipase C	
Linda F. Thompson, Julie M. Ruedi, and Martin G. Low	118
Purification and Characterization of High Molecular Weight Human Epidermal Growth	110
Factor from Human Urine Kenichi Tsukumo, Hiroko Nakamura,	
and Shunji Sakamoto	126
Decreased Lipid Peroxidation in the Rat Kidney during Gestation	
Thomas P. A. Devasagayam and U. Tarachand	134
Stimulation of the 23-kDa Protein cAMP Dependent Phosphorylation by Inositol 1,4,5-	
Trisphosphate in Human Platelet Membrane Vesicles Jocelyne Enouf,	
Françoise Giraud, Raymonde Bredoux, Nathalie Bourdeau,	
and Sylviane Levy-Toledano	139
Size of the Directing Moiety at Carbon 5 of Cytosine and the Activity of Human	
DNA(cytosine-5)methyltransferase Thomas A. Hardy, David J. Baker,	1.40
Edward M. Newman, Lawrence C. Sowers, Myron F. Goodman, and Steven S. Smith	146
Isolated Tumoral Pyruvate Dehydrogenase Can Synthesize Acetoin Which Inhibits	
Pyruvate Oxidation as well as Other Aldehydes Loris G. Baggetto	153
and Albert L. Lehninger Stereoselective Formation of Benzo[c]phenanthrene (+)-(3S,4R) and (+)-(5S,6R) Oxides	133
by Cytochrome P -450c in a Highly Purified and Reconstituted System	
P. J. van Bladeren, S. K. Balani, J. M. Sayer, D. R. Thakker, D. R. Boyd,	
D. E. Ryan, P. E. Thomas, W. Levin, and D. M. Jerina	160
The Effects of Lipoxin A and Lipoxin B on Functional Responses of Human Granulocytes	-00
Jan Palmblad, Hans Gyllenhammar, Bo Ringertz, Charles N. Serhan,	
Bengt Samuelsson, and K. C. Nicolaou	168
Inhibition of Adenylate Cyclase by IL 2 in Human T Lymphocytes Is Mediated by Protein	
Kinase C Suzanne K. Beckner and William L. Farrar	176
Reduced Sensitivity to Catecholamine in Werner's Syndrome Fibroblasts	
Shiro Bannai, Naomichi Okamura, Tetsuro Ishii, Yoshiki Sugita,	
Chieko Bannai, and Kamejiro Yamashita	183

Retention of Enzymatic Activity by N-Terminal Domain (1-78) T4-Lysozyme: Expression	
of Synthetic DNA in Escherichia coli J. Phipps, J. Michniewicz,	
Fei-Long Yao, and S. A. Narang	190
Atrial Natriuretic Polypeptide in Spinal Cord and Autonomic Ganglia	
Narito Morii, Kazuwa Nakao, Hiroshi Itoh, Shozo Shiono, Takayuki Yamada,	
Akira Sugawara, Yoshihiko Saito, Masashi Mukoyama, Hiroshi Arai,	
Makoto Sakamoto, and Hiroo Imura	196
The Role of 7-Mercaptoheptanoylthreonine Phosphate in the Methylcoenzyme M	
Methylreductase System from Methanobacterium thermoautotrophicum	
Kenneth M. Noll and Ralph S. Wolfe	204
The Effect of EDTA-Fe(III) Complexes with Different Chemical Structure on the Lipid	
Peroxidation in Brain Microsomes Attila Marton, Noemi Sukosd-Rozlosnik,	
Attila Vertes, and Istvan Horvath	211
Similar Physical and Kinetic Properties of Rat Brain Synaptic Membrane and Cytosol	
Phosphoinositide Phospholipases C Osamu Kozawa, Masahiko Hoshijima,	
Tetsuji Tanimoto, Toshihiko Ohmori, and Yoshimi Takai	218
Stimulation of Quiescent 3T3 Cells by Phosphatidic Acid-Containing Liposomes	
Deborah W. Siegmann	228
Two Independent Domains of Factor VIII Coexpressed Using Recombinant Vaccinia	
Viruses Have Procoagulant Activity Andréa Pavirani, Pierre Meulien,	
Huguette Harrer, Karin Dott, Fabienne Mischler, Marie-Louise Wiesel,	
Claudine Mazurier, Jean-Pierre Cazenave, and Jean-Pierre Lecocq	234
High Molecular Weight Alzheimer's Disease Amyloid Peptide Immunoreactivity in Human	
Serum and CSF Is an Immunoglobulin G William M. Pardridge,	
Harry V. Vinters, Bruce L. Miller, Wallace W. Tourtellotte,	
Jody B. Eisenberg, and Jing Yang	241
A Novel Inositol Glycophospholipid (IGPL) and the Serum Dependence of Its Metabolism	
in Bovine Adrenocortical Cells Y. Igarashi and E. M. Chambaz	249
Association of the Atrial Natriuretic Factor Receptor with Guanylate Cyclase in Solubilized	- 17
Rat Glomerular Membranes Mareomi Hamada, Isaac J. Rondon,	
Edward D. Frohlich, and Francis E. Cole	257
Glucose Stimulates Insulin Release without Altering Cyclic AMP Production or	,
Inositolphospholipid Turnover in Freshly Obtained Human Insulinoma Cells	
Tsutomu Chiba, T. Yamatani, S. Kadowaki, A. Yamaguchi, T. Inui,	
Y. Saito, and T. Fujita	263
The 2',3'-Dideoxyriboside of 2,6-Diaminopurine Selectively Inhibits Human Immuno-	200
deficiency Virus (HIV) Replication in Vitro Jan Balzarini, Rudi Pauwels,	
Masanori Baba, Morris J. Robins, Piet Herdewijn, and Erik De Clercq	269
The 2',3'-Dideoxyriboside of 2,6-Diaminopurine and Its 2',3'-Didehydro Derivative	207
Inhibit the Deamination of 2',3'-Dideoxyadenosine, an Inhibitor of Human	
Immunodeficiency Virus (HIV) Replication Jan Balzarini, Morris J. Robins,	
Piet Herdewijn, and Erik De Clercq	277
Effects of Abscisic Acid on K ⁺ Channels in Vicia faba Guard Cell Protoplasts	
C. L. Schauf and K. J. Wilson	284
Inhibition of Viral Reverse Transcriptase by 2',5'-Oligoadenylates	20.
Dai Kee Liu and Gail F. Owens	291
Polarized Attenuated Total Reflectance Spectra of Oriented Purple Membranes	2/1
Paul W. Yang, Laura C. Stewart, and Henry H. Mantsch	298
Phorbol Esters Inhibit Phosphate Uptake in Opossum Kidney Cells: A Model of Proximal	270
Renal Tubular Cells Masamichi Nakai, Yoshikazu Kinoshita, Masaaki Fukase,	
and Takuo Fujita	303
Phosphocholinetransferase Activity in Plasma Membrane: Effect of Diet	505
K. M. Hargreaves and M. T. Clandinin	309
Novel Leu-Lys-Specific Peptidase (Leulysin) Produced by Gel-Entrapped Yeast Cells	20)
Tsutomu Okada, Kenji Sonomoto, and Atsuo Tanaka	316

Tumor Necrosis Factor Type α (Cachectin) Stimulates Mouse Osteoblast-like Cells	
(MC3T3-E1) to Produce Macrophage-Colony Stimulating Activity and Prostaglandin E_2	
Kanji Sato, Keizo Kasono, Yuko Fujii, Masanobu Kawakami,	
Toshio Tsushima, and Kazuo Shizume	323
Pseudogene in the Genome of Bacteriophage Lambda? Jaroslav Kypr	
and Jan Mrázek	330
Effects of Steroid and Thyroid Hormones on Synthesis of Atrial Natriuretic Peptide by	
Cultured Atrial Myocytes of Rat H. Matsubara, Y. Hirata, H. Yoshimi,	
S. Takata, Y. Takagi, T. Iida, Y. Yamane, Y. Umeda, M. Nishikawa, and M. Inada	336
The Adenosine Receptor Mediated Accumulation of Cyclic AMP in Jurkat Cells Is	
Enhanced by a Lectin and by Phorbol Esters Bertil B. Fredholm,	
Mikael Jondal, and Christer Nordstedt	344
Inhibition of Cellular Cholesterol Esterification Can Decrease Low Density Lipoprotein	٠.,
Receptor Number in Human Fibroblasts Bruce Middleton	350
A Disbalance between Beta-Adrenergic and Muscarinic Responses Caused by Hydrogen	330
Peroxide in Rat Airways in Vitro Klaas Kramer, Cornelis J. A. Doelman, Hendrik Timmerman, and Aalt Bast	357
	331
Fat Feeding Stimulates Only One of the Two mRNAs Encoding Rat Intestinal Membranous	
and Secreted Alkaline Phosphatase Shakuntla Seetharam, Catherine Ovitt,	262
Arnold W. Strauss, Deborah Rubin, and David H. Alpers	363
Evidence That the Lipolytic Defect Induced by Estradiol-Treatment in Hamster Adipocytes	
Is Related to an Estrogen Receptor-Mediated Defect in the Adenylate Cyclase	
Catalytic Subunit But Not in N _s René Pecquery, Marie-Christine Leneveu,	•
and Yves Giudicelli	369
Cobalt-Protoporphyrin Causes Prolonged Inhibition of Catechol Estrogen Synthesis by Rat	
Liver Microsomes Richard A. Galbraith and Peter H. Jellinck	376
The Role of Platelet Cyclooxygenase and Lipoxygenase Pathways in Tumor Cell Induced	
Platelet Aggregation Kenneth V. Honn, Bruce W. Steinert, Kamiar Moin,	
James M. Onoda, John D. Taylor, and Bonnie F. Sloane	384
Yeast Pyruvate Carboxylase: Gene Isolation C. Phillip Morris, Filip Lim,	
and John C. Wallace	390
Evidence for Lactate Utilization for Fetal Lung Glycogen Synthesis	
Michael J. Engle, Marianne Dooley, and D. Jeannette Brown	397
Conversion of Estradiol-17 β to Reactive Embryotoxic Intermediates by Cytochrome	
P-450-Dependent Bioactivating Systems Bruce K. Beyer and Mont R. Juchau	402
The Action of Lipoxin-A on Glomerular Microcirculatory Dynamics in the Rat	
Kamal F. Badr, Charles N. Serhan, K. C. Nicolaou, and Bengt Samuelsson	408
Evidence for Existence of Various Homologs and Analogs of Platelet Activating Factor in a	
Lipid Extract of Bovine Brain Akira Tokumura, Koumei Kamiyasu,	
Kenkichi Takauchi, and Hiroaki Tsukatani	415
Cloned Human Interferons α : Differential Affinities for Polyinosinic Acid and Relationship	
between Molecular Structure and Species Specificity M. K. Chelbi-Alix	
and M. N. Thang	426
	720
Transforming Growth Factor β Inhibits DNA Synthesis in Hepatocytes Isolated from	
Normal and Regenerating Rat Liver A. J. Strain, A. Frazer, D. J. Hill, and R. D. G. Milner	436
	730
Changes in the β-Subunit of Mitochondrial F ₁ ATPase during Neurogenesis Jean-Luc Vayssiere, Jean-Christophe Larcher, François Gros,	
gean-Luc vayssiere, jean-Christophe Larcher, François Gros, and Bernard Croizat	443
	-43
In Vivo 31P NMR in Crustacean Muscles: Fatigue and Recovery in the Tail Musculature	
from the Prawn Palaemon elegans M. T. Thébault, J. P. Raffin, and J. Y. LeGall	453
	+33
Evidence That the α and $\alpha(+)$ Isoforms of the Catalytic Subunit of (Na^+, K^+) -ATPase Reside	
in Distinct Ciliary Epithelial Cells of the Mammalian Eye Miguel Coca-Prados and Laura G. López-Briones	460
miguei Coca-rraaos ana Laura G. Lopez-briones	+00

Diferric Transferrin Reduction Stimulates the Na ⁺ /H ⁺ Antiport of HeLa Cells I. L. Sun, R. Garcia-Cañero, W. Liu, W. Toole-Simms, F. L. Crane,	
D. J. Morré, and H. Löw	467
The Basic Glutathione S-Transferases from Human Livers Are Products of Separate Genes David M. Rhoads, Ray P. Zarlengo, and Chen-Pei D. Tu	474
The Effects of DNA Methylation by <i>HhaI</i> Methylase on the Cleavage Reactions by <i>HaeII</i> ,	7/7
AhaII, and BanI Endonucleases Sun Chul Kang, Woo Sung Choi,	
and Ook Joon Yoo	482
An Antibody Purified with a \(\text{\gamma} \text{t11 Fusion Protein Precipitates Enkephalinase Activity} \)	
Philippe H. Kahn, John F. Powell, Ann Beaumont, Bernard P. Roques, and Jacques J. B. Mallet	488
Effect of Extracellular Calcium on Vascular Contraction Induced by Phorbol Ester	100
Makoto Sawamura, Yuta Kobayashi, Yasuo Nara, Keisuke Hattori,	
and Yukio Yamori	494
Effects of Phorone (Diisopropylidene Acetone), a Glutathione (GSH) Depletor, on Hepatic Enzymes Involved in Drug and Heme Metabolism in Rats: Evidence That Phorone Is a	
Potent Inducer of Heme Oxygenase Takemi Yoshida, Takiko Oguro,	
Satoshi Numazawa, and Yukio Kuroiwa	502
Reversible, Slow, Tight-Binding Inhibition of Human Leukocyte Elastase	
Richard P. Dunlap, Phillip J. Stone, and Robert H. Abeles	509
Synergism of Tumor Necrosis Factor and Interferon-γ in Induction of Differentiation of	
Human Myeloblastic Leukemic ML-1 Cells Tetsuo Takuma, Ken Takeda, and Kunio Konno	514
Specific Binding of Atrial Natriuretic Factor to Renal Glomeruli in DOCA- and DOCA-	317
Salt-Treated Rats: Correlation with Atrial and Plasma Levels	
Guillemette Gauquelin, Ernesto L. Schiffrin, Marc Cantin, and Raul Garcia	522
Correlation between Cardiac Hypertrophy and Plasma Levels of Atrial Natriuretic Factor	
in Nonspontaneous Models of Hypertension in the Rat Raul Garcia, Gaétan Thibault, and Marc Cantin	532
Improved Detection Limits in an Organic Mass Spectrometer Using a Combination of	332
Matrix Free FAB and Photodiode Array Detection	
Lester C. E. Taylor, David A. Brent, and John S. Cottrell	542
Effects of Teleocidin on the Morphology and c-myc Expression of Hepatoma Cells Which	
Are Not Inhibited by Protein Kinase Antagonists Yoshiyasu Kaneko, Gotaro Toda, and Hiroshi Oka	549
Calcium Ion-Dependent Proliferation of L1210 Cells in Culture	247
Joseph G. Cory, Gay L. Carter, and Richard C. Karl	556
Kinetic Studies of the Copper Nitrite Reductase from Achromobacter cycloclastes and Its	
Interaction with a Blue Copper Protein Mohammed A. Kashem,	5/0
H. Brian Dunford, Ming-Yih Liu, William J. Payne, and Jean LeGall Synthesis of N ⁴ -Substituted CTP by Mammalian CTP Synthetase	563
Harutoshi Kizaki, Fumihiro Ohsaka, and Tomomi Sakurada	569
Metabolism of (2-(2-Thienyl)allylamine Hydrochloride in the Rat: Identification of a Novel	
Metabolite W. Perry Gordon, James R. McCarthy, and Sai Y. Chang	575
Adenosine Deaminase Activity in Recipients of Bone Marrow from Immunodeficient Mice	
Homozygous for the Wasted Mutation Erik H. Willis, Dennis A. Carson, and Leonard D. Schultz	581
Enzyme-Catalyzed Nonoxidative Decarboxylation of Aromatic Acids: I. Purification and	501
Spectroscopic Properties of 2,3-Dihydroxybenzoic Acid Decarboxylase from	
Aspergillus niger Ajith V. Kamath, Dipak Dasgupta, and C. S. Vaidyanathan	586
Interchange Reaction of Disulfides and Denaturation of Oxytocin by Copper(II)/Ascorbic	596
Acid/O ₂ System Hideshi Inoue and Masaaki Hirobe Transient Induction of Photolyase Activity in Arrested Frog Cells in Response to a Short-	330
Wave Ultraviolet Segment of Simulated "Sunlight"	
Chuck C -K Chao and Sue Lin-Chao	604

Effects of Experimental Acute Pancreatitis in Dogs on Metabolism of Lung Surfactant Phosphatidylcholine Salil K. Das, Mack T. Scott, and Stonewall McCuiston Direct Electron Transfer Reactions of Cytochrome c ₅₅₃ from Desulfovibrio vulgaris	612
Hildenborough at Indium Oxide Electrodes Kent B. Koller, Fred M. Hawkridge, Guy Fauque, and Jean LeGall	619
Cap Z _(36/32) Is a Contaminant and the Major Inhibitor of Actin Network Formation in Conventional Actin Preparations James F. Casella and Donna J. Maack	625
Phosphatidylserine Vesicles Încrease Rat Brain Synaptosomal Adenylate Cyclase Activity Maura Floreani and Francesca Carpenedo	631
Volume 143, Number 3, March 30, 1987: Ann D. Colosia, Mark Lively, M. Raafat El-Maghrabi, and Simon J. Pilkis, "Isolation of a cDNA Clone for Rat Liver 6-Phosphofructo-2-kinase/Fructose-2,6-bisphosphatase," pp. 1092-1098	637
Volume 145, Number 2, June 15, 1987	
AUTHOR INDEX, Volume 145, Number 2, June 15, 1987	ii
Serum Regulation of Collagen Biosynthesis in Human Diploid Fibroblasts	
A. S. Narayanan and R. C. Page Competition of a Growth Stimulating-Cholecystokinin (CCK)-Releasing Peptide (Monitor Peptide) with Epidermal Growth Factor for Binding to 3T3 Fibroblasts	639
Shin-Ichi Fukuoka, Tohru Fushiki, Yasuo Kitagawa, Etsuro Sugimoto, and Kazuo Iwai	646
In Vitro Calcification in Human Osteoblastic Cell Line Derived from Periosteum	
Yasuko Koshihara, Mieko Kawamura, Hiromi Oda, and Shohzo Higaki Alterations in Components of the Ubiquitin-Protein Ligase System following Maturation of Reticulocytes to Erythrocytes Osnat Raviv, Hannah Heller,	651
and Avram Hershko	658
The Protein Kinase C Inhibitor, H-7, Inhibits Antigen and IL-2-Induced Proliferation of Murine T Cell Lines Robert B. Clark, James T. Love, Jr., Dennis Sgroi,	
Elizabeth G. Lingenheld, and Ramadan I. Sha'afi In Vitro Synthesis of ³² P-Labeled Phosphatidylinositol 4,5-Bisphosphate and Its Hydrolysis	666
by Smooth Muscle Membrane-Bound Phospholipase C	
Hans-Jürgen Fülle, Dieter Höer, Waltraud Lache, Walter Rosenthal,	
Günter Schultz, and Eckard Oberdisse Opposite Effects of Neuropeptide Y (NPY) and Polypeptide YY (PYY) on Plasma Immunoreactive Atrial Natriuretic Factor (IR-ANF) in Rats	673
Boguslawa Baranowska, Jolanta Gutkowska, Anouc Lemire,	
Marc Cantin, and Jacques Genest	680
Inhibition of Bovine and Human Brain 2':3'-Cyclic Nucleotide 3'-Phosphodiesterase by	
Heparin and Polyribonucleotides and Evidence for an Associated 5'-Polynucleotide	606
Kinase Activity Terry Joe Sprinkle, Russell B. Tippins, and Daniel P. Kestler Concanavalin A-Stimulated Murine Splenocytes Produce a Factor with Prolactin-like	686
Bioactivity and Immunoreactivity David W. Montgomery, Charles F. Zukoski, Gul N. Shah, Arthur R. Buckley, Tadeusz Pacholczyk, and Diane Haddock Russell	692
Conservation among Vertebrate Immunoglobulin Chains Detected by Antibodies to a	0,2
Synthetic Joining Segment Peptide Samuel F. Schluter, Ira L. Rosenshein,	600
Roger A. Hubbard, and John J. Marchalonis Progestin Effects on Growth in the Human Breast Cancer Cell Line T-47D—Possible	699
Therapeutic Implications Judith R. Hissom and Michael R. Moore	706
Differences between Saccharomyces cerevisiae and Bacillus subtilis in Secretion of Human Lysozyme Koji Yoshimura, Asae Toibana, Kaeko Kikuchi, Makoto Kobayashi,	
Takaki Hayakawa, Kazuo Nakahama, Masakazu Kikuchi, and Morio Ikehara	712
Phosphorylated Isomers of L-Dopa Stimulate MSH Binding Capacity and Responsiveness of MSH in Cultured Melanoma Cells John McLane, Michael Osber,	
and John M. Pawelek	719

The Majority of Methylated Deoxycytidines in Human DNA Are Not in the CpG Dinucleotide D. M. Woodcock, P. J. Crowther, and W. P. Diver	888
Production of Inositol Pentakisphosphate in a Human T Lymphocyte Cell Line	005
Stanford J. Stewart, Linda L. Kelley, and Frances S. Powers	895
Isolation of a cDNA Clone for the Dihydrolipoamide Acetyltransferase Component of the	
Human Liver Pyruvate Dehydrogenase Complex T. J. Thekkumkara,	
B. W. Jesse, L. Ho, C. Raefsky, R. A. Pepin, A. A. Javed, G. Pons, and M. S. Patel	903
Chemical Modification of Enzymes with Activated Magnetic Modifier	
Takayuki Yoshimoto, Takeshi Mihama, Katsunobu Takahashi, Yuji Saito,	
Yutaka Tamaura, and Yuji Inada	908
Cooperativity between Platelet-Activating Factor and Collagen in Platelet Aggregation	
S. Kojima, H. Hagiwara, W. Soga, F. Sekiya, Y. Saito, and Y. Inada	915
Putative Nuclease-Sensitive Control Element in Unfertilized Eggs of the Sea Urchin	
Lytechinus pictus Elizabeth N. Mandley and Alina C. Lopo	921
Relationship between the Uptake and Cytotoxicity of Celiptium in Wild Type and Resistant	
Mutants of the Bacterium Streptococcus pneumoniae A. M. Sautereau,	
J. F. Tocanne, and M. C. Trombe	927
Signaling for Increased Cytoskeletal Actin in Neutrophils R. I. Sha'afi and	
T. F. P. Molski	934
Synthesis and Biological Activity of Substance P C-Terminal Hexapeptide Analogs:	754
Structure–Activity Studies Anna Janecka, Wiktor Koziołkiewicz,	
Tadeusz Wasiak, and Czesław S. Cierniewski	942
Interaction of Tubulin with the Macromolecular Apolar Probe, Octyl Sepharose	742
A. R. S. Prasad, Veena Prasad, Richard F. Ludueña, and Paul M. Horowitz	949
1,25(OH) ₂ D ₃ Increases Cytosolic Ca ²⁺ Concentration of Osteoblastic Cells, Clone	949
	057
MC3T3-E1 Joji Oshima, Masae Watanabe, Jiro Hirosumi, and Hajime Orimo	956
Sequence Homologies between p36, the Substrate of pp60 ^{src} Tyrosine Kinase, and a 67-kDa	
Protein Isolated from Bovine Aorta François Martin, Jean Derancourt,	
Jean-Paul Capony, Soudir Colote, and Jean-Claude Cavadore	961
Inhibitory Effect of Human Recombinant Interleukin-1 α and β on Growth of Human	
Vascular Endothelial Cells Kenichi Norioka, Masako Hara, Atushi Kitani,	
Tatsuo Hirose, Wataru Hirose, Masayoshi Harigai, Kimihiro Suzuki,	
Makoto Kawakami, Hirotsugu Tabata, Mituhiro Kawagoe, and Haruo Nakamura	969
Human Neutrophils Contain Subpopulations of Specific Granules Exhibiting Different	
Sensitivities to Changes in Cytosolic Free Calcium H. Daniel Perez,	
Shelley Marder, Fred Elfman, and Harlan E. Ives	976
Epidermal Growth Factor Stimulates Serine and Tyrosine Phosphorylation in a 59-kDa	
Protein in Purified Plasma Membranes from Rat Liver	
Thérèse David-Pfeuty and François Guesdon	982
ERRATUM	
Volume 143, Number 2, March 13, 1987: Hiroshi Itoh, Kazuwa Nakao, Shozo	
Shiono, Masashi Mukoyama, Narito Morii, Akira Sugawara, Takayuki Yamada,	
Yoshihiko Saito, Hiroshi Arai, Yoshikazu Kambayashi, Ken Inouye, and Hiroo	
Imura, "Conversion of β -Human Atrial Natriuretic Polypeptide into α -Human	
Atrial Natriuretic Polypeptide in Human Plasma in Vitro," pp. 560–569	989
Attiai Natifuletic Polypeptide in Adman Piasma in Vitro, pp. 300-309	909
Volume 145, Number 3, June 30, 1987	
AUTHOR INDEX, Volume 145, Number 3, June 30, 1987	ii
Conversion of Leukotriene B ₄ to Dihydro and 19-Hydroxy Metabolites by Rat	
Polymorphonuclear Leukocytes William S. Powell	991
Glucocorticoid Induction of the Maturation of Ovine Fetal Adrenocortical Cells	
Halima Darbeida, Elisabeth Naaman, and Philippe Durand	999
Calcium Binding to Untreated and Dephosphorylated Porcine Neurofilaments	-

Suzie Lefebvre and Walter E. Mushynski 1006

Effect of Nifedipine on 67-kDa Calcimedin in Cultured Macrophages and Smooth Muscle Cells Stephen S. Morse and Pamela B. Moore	726
Strain-Specific Postnatal Changes in the Activity and Tissue Levels of Protein Kinase C Alvin M. Malkinson, Peggy R. Girard, and J. F. Kuo	733
A New Ribonuclease from Cobra Venom (Naja naja) Showing Specificity toward Cytidylic Acid Y. W. Mahalakshmi and M. W. Pandit	740
Cytochrome P-450 Dependent Metabolism of Testosterone in Rat Skin	
Hasan Mukhtar, Mohammad Athar, and David R. Bickers	749
A Muscarinic Agonist-Stimulated Chloride Efflux Pathway Is Associated with Fluid	
Secretion in Rat Parotid Acinar Cells James E. Melvin, Mitsuru Kawaguchi,	751
Bruce J. Baum, and R. James Turner Protein Kinase C Binding to Isolated Nuclei and Its Activation by a Ca ²⁺ /Phospholipid-	754
Independent Mechanism U. K. Misra and Naji Sahyoun	760
S-D-Lactoylglutathione in Resting and Activated Human Neutrophils	700
P. J. Thornalley, V. Della Bianca, P. Bellavite, and F. Rossi	769
Rapid Enzymatic Degradation of [125I] (TYR 10) FGF (1-10) by Serum in Vitro and	709
Involvement in the Determination of Circulating FGF by RIA	
T. Gauthier, M. Maftouh, and C. Picard	775
Phosphorylation of ras Oncogene Product by Protein Kinase C	,,,
Arco Y. Jeng, Shiv K. Srivastava, Juan Carlos Lacal, and Peter M. Blumberg	782
Atrial Natriuretic Peptide, ANP (99-126), Receptors in Rat Thymocytes and Spleen Cells	
Masaki Kurihara, Shigeru Katamine, and Juan M. Saavedra	789
Three Distinct Forms of Rat Brain Protein Kinase C: Differential Response to Unsaturated	
Fatty Acids Kazuo Sekiguchi, Masanori Tsukuda, Kouji Ogita,	
Ushio Kikkawa, and Yasutomi Nishizuka	797
Covalent Linkage of Phosphoinositides to Myelin Basic Protein: In Vitro Incorporation of	
[³² P] Phosphoinositides to Myelin Basic Protein Ken C. Chiu and	
Roberts A. Smith	803
Localization of Azidophencyclidine-Binding Site on the Nicotinic Acetylcholine Receptor	
α-Subunit Rachel Mosckovitz, Rachel Haring, Jonathan M. Gershoni,	
Yoel Kloog, and Mordechai Sokolovsky	810
The Potentiation of Ammonia Toxicity by Sodium Benzoate Is Prevented by L-Carnitine	~ - -
J. E. O'Connor, M. Costell, and S. Grisolía	817
Chemotactic Peptide, Calcium, and Guanine Nucleotide Regulation of Phospholipase C Activity in Membranes from DMSO-Differentiated HL60 Cells	
John C. Anthes, M. Motasim Billah, Ann Cali,	
Robert W. Egan, and Marvin I. Siegel	825
Mean Geometry of the Thiopeptide Unit and Conformational Features of Dithiopeptides	
and Polythiopeptides V. N. Balaji, Salvatore Profeta, Jr.,	924
and Stephen W. Dietrich Water Induced Dismutation of Superavide Anian Generates Singlet Molecular Octuber	834
Water Induced Dismutation of Superoxide Anion Generates Singlet Molecular Oxygen E. J. Corey, Mukund M. Mehrotra, and Ahsan U. Khan	842
Monoclonal Anti-idiotypic Antibodies That Recognize the Binding Site for Nicotine on Rat	042
Brain Receptor Robert J. Bjercke and John J. Langone	847
Mechanism of Cytotoxicity of Aflatoxin B_1 : Role of Cytochrome P_1 -450	047
Sirpa O. Kärenlampi	854
Identification of the Product of dnaB Gene in Bacillus subtilis	051
Kounosuke Watabe and Reza Forough	861
Spectral Properties of Nitric Oxide Complex of Cytochrome c' from Rhodopseudomonas	001
capsulata B100 Tetsuhiko Yoshimura, Shinnichiro Suzuki, Hidekazu Iwasaki,	
and Susumu Takakuwa	868
Apoptosis Induced by Cold Shock in Vitro Is Dependent on Cell Growth Phase	
B. L. Soloff, W. A. Nagle, A. J. Moss, Jr., K. J. Henle, and J. T. Crawford	876
Thymosin α_1 : Amino Acid Homology with Peptide T from the Human Immunodeficiency	
Virus Envelope Toan D. Nguyen and Lawrence A. Scheving	884

The Constitutive 7-Ethoxycoumarin O-Deethylase Activity of Human Placental Microsomes: Relationship to Aromatase Robert A. Meigs	1012
Production of an hEGF-like Immunoreactive Factor by Human Gastric Cancer Cells Depends on Differentiational State of the Cells Kazutoshi Mori, Shigeru Ibaragi, Masayuki Kurobe, Shoei Furukawa, and Kyozo Hayashi	1010
Interferon Inhibition of DNA Synthesis in Swiss 3T3 Cells: Dissociation from Protein Kinase C Activation Huseyin Mehmet, Clive M. G. Morris,	
Joyce Taylor-Papadimitriou, and Enrique Rozengurt Identification of a Fodrin-like Protein in Rat Liver Basolateral Membranes	
Monika Amrein-Gloor and Paolo Gazzotti L-Lysinethiol: A Subnanomolar Inhibitor of Aminopeptidase B	
Timothy D. Ocain and Daniel H. Rich Cross-Reaction of a Plant Protein Kinase with Antiserum Raised against a Sequence from Bovine Brain Protein Kinase C Regulatory Subunit D. C. Elliott and	
Y. S. Kokke Inactivation of Angiotensin Converting Enzyme by Sodium Nitroprusside	1043
Jeen Woo Park and Gary E. Means	1048
Inhibition of Triosephosphate Isomerase in Boar Spermatozoa by (S)-3-Chlorolactaldehyde A. R. Jones and S. W. Cooney	
Identification of the Na ⁺ /Ca ²⁺ Exchanger of Calf Heart Sarcolemma with the Help of	105 1
Specific Antibodies Stefano Longoni and Ernesto Carafoli Segregation of Nucleosomes in Replicated Mouse α -Globin Gene	1059
N. Kirov, I. Tsaneva, J. Yaneva, and R. Tsanev	1064
Neurotensin Receptors on the Rat Liver Plasma Membranes	
Koutarou Muraki, Yoshikazu Nishi, Masaru Arai, Norio Kubo, Kazuhiro Ueda, Hiroo Shikata, Yoshihiro Nakata, Tomio Segawa, Noboru Yanaihara,	
and Haruaki Yajima	1071
Selective Inhibition of Human Immunodeficiency Virus (HIV) by 3'-Azido-2',3'-	1071
dideoxyguanosine in Vitro Masanori Baba, Rudi Pauwels, Jan Balzarini,	
Piet Herdewijn, and Erik De Clercq	1080
D-Glucose Binding Increases Secondary Structure of Human Erythrocyte Monosaccharide Transport Protein Asha B. Pawagi and Charles M. Deber	1087
Stable Phospholipid Membrane Supported on Porous Filter Paper	
Kenichi Yoshikawa, Hisae Hayashi, Takashi Shimooka, Hiroshi Terada, and Toshio Ishii	1000
H NMR Investigation of Yeast Cytochrome c: Interaction with the Corresponding Specific Reductase (L-Lactate Cytochrome) M. A. Thomas, M. A. Delsuc,	1092
J. C. Beloeil, and J. Y. Lallemand	1098
Increased Reactivity in the Mesenteric Artery of Spontaneously Hypertensive Rats to Phorbol Ester M. Jane MacKay and Donald W. Cheung	
Mechanism of the Interaction between Myelin Basic Protein and the Myelin Membrane:	1103
The Role of Arginine Methylation Paul R. Young, Dominic A. Vacante,	
and Cynthia M. Waickus	1112
Bradykinin-Stimulated Changes in Inositol Phosphate Mass in Renal Papillary Collecting Tubule Cells James A. Shayman and Maureen T. Kirkwood	1119
Stimulated Production and Natural Occurrence of 1,2-Diarachidonoylglycerophos- phocholine in Human Neutrophils Floyd H. Chilton and Robert C. Murphy	
Nucleoside Permeation in Mouse Erythrocytes Infected with Plasmodium yoelii	
Wendy P. Gati, Asmus FW. Stoyke, Annette M. Gero, and Alan R. P. Paterson Occurrence of the HNK-1 Epitope (3-Sulfoglucuronic Acid) in PC12 Pheochromocytoma	1134
Cells, Chromaffin Granule Membranes, and Chondroitin Sulfate Proteoglycans R. K. Margolis, J. A. Ripellino, B. Goossen, R. Steinbrich, and R. U. Margolis	1142
Stimulation of Transcription and Translation by Aurin Tricarboxylic Acid in Mitochondrial Lysates from Ehrlich Ascites Cells	12
Gopal R. Kulkarni, Gouder R. Kantharaj, Cathryn Fluellen,	
Banavadi G. Niranjan, and Narayan G. Avadhani	1149