

Contents to volume 233

Research Letters

Immunological studies on the D-1 and D-2 proteins of photosystem II preparations from the thermophilic cyanobacterium, <i>Synechococcus</i> sp. (FEB 05903) <i>K. Satoh, R. Dostatni, U. Johanningmeier, W. Oettmeier</i>	1
A new possible binding site for bacteriochlorophyll <i>b</i> in a light-harvesting polypeptide of the bacterium <i>Ectothiorhodospira halochloris</i> (FEB 05905) <i>R. Wagner-Huber, R.A. Brunisholz, I. Bissig, G. Frank, H. Zuber</i>	7
Energy transfer within the isolated B875 light-harvesting pigment-protein complex of <i>Rhodobacter sphaeroides</i> at 77 K studied by picosecond absorption spectroscopy (FEB 05896) <i>H. Bergström, W.H.J. Westerhuis, V. Sundström, R. van Grondelle, R.A. Niederman, T. Gillbro</i>	12
Kinetic limitations in the overall reaction of mitochondrial oxidative phosphorylation accounting for flux-dependent changes in the apparent $\Delta G_p^{\circ} / \Delta \mu H^+$ ratio (FEB 05907) <i>W. Kunz, F.N. Gellerich, L. Schild, P. Schönfeld</i>	17
Quantification of p38/synaptophysin in highly purified adrenal medullary chromaffin vesicles (FEB 05904) <i>K. Schilling, M. Gratzl</i>	22
The location of Cu _A in mammalian cytochrome <i>c</i> oxidase (FEB 05898) <i>P.R. Rich, I.C. West, P. Mitchell</i>	25
Crystallization of cytochrome P-450 _{sec} from bovine adrenocortical mitochondria (FEB 05919) <i>Y. Iwamoto, M. Tsubaki, A. Hiwatashi, Y. Ichikawa</i>	31
Phenobarbital, dexamethasone and benzantracene induce several cytochrome P450 mRNAs in rat hepatoma cells (FEB 05908) <i>L. Corcos, M.C. Weiss</i>	37
Epidermal growth factor-induced increases in inositol trisphosphates, inositol tetrakisphosphates, and cytosolic Ca ²⁺ in a human hepatocellular carcinoma-derived cell line (FEB 05901) <i>A. Gilligan, M. Prentki, M.C. Glennon, B.B. Knowles</i>	41
Periportal and perivenous hepatocytes respond equally to glycogenolytic agonists (FEB 05902) <i>S. Keppens, H. De Wulf</i>	47
Enhanced transcription of mitochondrial genes after growth stimulation and glucocorticoid treatment of Reuber hepatoma H-35 (FEB 05900) <i>T. Kadowaki, Y. Kitagawa</i>	51
A third human CALC (pseudo)gene on chromosome 11 (FEB 05899) <i>J.W.M. Höppener, P.H. Steenbergh, J. Zandberg, G.J. Adema, A.H.M. Geurts van Kessel, C.J.M. Lips, H.S. Jansz</i>	57
<i>C-fos</i> gene activation in murine thymocytes by a mechanism independent of protein kinase C or a Ca ²⁺ signal (FEB 05917) <i>J.P. Moore, G.E. Menzel, T.R. Hesketh, J.C. Metcalfe</i>	64
Subunit-specific phosphorylation of pyruvate kinase in medullary thyroid carcinomas of the rat (FEB 05906) <i>G. Rijksen, M.C.M. van der Heijden, R. Oskam, G.E.J. Staal</i>	69
Ca ²⁺ regulation of thyroid NADPH-dependent H ₂ O ₂ generation (FEB 05909) <i>C. Dupuy, D. Dème, J. Kaniewski, J. Pommier, A. Virion</i>	74
Atrial natriuretic peptide (ANP) in rat gastrointestinal tract (FEB 05918) <i>O. Vuolteenaho, O. Arjamaa, O. Vakkuri, T. Maksniemi, L. Nikkilä, J. Kangas, J. Puurunen, H. Ruskoaho, J. Leppäluoto</i>	79
Shift in rat liver glycolysis control from fed to starved conditions: Flux control coefficients of glucokinase and phosphofructokinase (FEB 05921) <i>N.V. Torres, F. Mateo, E. Meléndez-Hevia</i>	83
Family of human Na ⁺ , K ⁺ -ATPase genes: Structure of the gene for the catalytic subunit (α III-form) and its relationship with structural features of the protein (FEB 05920) <i>Yu.A. Ovchinnikov, G.S. Monastyrskaya, N.E. Broude, Yu.A. Ushkaryov, A.M. Melkov, Yu.V. Smirnov, I.V. Malyshev, R.L. Allikmets, M.B. Kostina, I.E. Dulubova, N.I. Kiyatkin, A.V. Grishin, N.N. Modyanov, E.D. Sverdlov</i>	87
Is translation inhibited by noncognate ternary complexes? (FEB 05913) <i>N. Bilgin, M. Ehrenberg, C. Kurland</i>	95
The amino acid substitution in albumin Roma: 321 Glu→Lys (FEB 05911) <i>M. Galliano, L. Minchiotti, P. Iadarola, G. Ferri, M.C. Zapponi, A.A. Castellani</i>	100

Amino acid sequence template useful for α -helix-turn- α -helix prediction (FEB 05910) <i>B.V. Shestopalov</i>	105
Monoclonal antibodies to type IV collagenase recognize a protein with limited sequence homology to interstitial collagenase and stromelysin (FEB 05926) <i>M. Höyhty, T. Turpeenniemi-Hujanen, W. Stetler-Stevenson, H. Krutzsch, K. Tryggvason, L.A. Liotta</i>	109
Identification of proteins of the 40 S ribosomal subunit involved in interaction with initiation factor eIF-2 in the quaternary initiation complex by means of monospecific antibodies (FEB 05915) <i>U.-A. Bommer, J. Stahl, A. Henske, G. Lutsch, H. Bielka</i>	114
Three-dimensional location of ribosomal protein BL2 from <i>Bacillus stearothermophilus</i> , a key component of the peptidyl transferase center (FEB 05914) <i>W. Hackl, M. Stöffler-Meilicke, G. Stöffler</i>	119
In vivo NMR studies of the alga <i>Dunaliella salina</i> embedded in beads (FEB 05923) <i>M. Oren-Shamir, M. Avron, H. Degani</i>	124
The metabolism of biphenyl structures in lignin by the soil bacterium (<i>Pseudomonas paucimobilis</i> SYK-6) (FEB 05922) <i>Y. Katayama, S. Nishikawa, A. Murayama, M. Yamasaki, N. Morohoshi, T. Haraguchi</i>	129
Selective terminal $\alpha 2-3$ and $\alpha 2-6$ sialylation of glycosphingolipids with lacto-series type 1 and 2 chains in human meconium (FEB 05924) <i>M. Iwamori, M. Noguchi, T. Yamamoto, M. Yago, S. Nozawa, Y. Nagai</i>	134
Differential effects of maitotoxin on ATP secretion and on phosphoinositide breakdown in rat pheochromocytoma cells (FEB 05927) <i>F. Gusovsky, J.W. Daly, T. Yasumoto, E. Rojas</i>	139
Tissue specific opsonins for phagocytic cells and their different affinity for cholesterol-rich liposomes (FEB 05925) <i>S.M. Moghimi, H.M. Patel</i>	143
High-performance liquid chromatography of the main polypeptide (MP26) of lens fiber plasma membranes solubilized with <i>n</i> -octyl β -D-glucopyranoside (FEB 05912) <i>S. Manenti, I. Dunia, M. le Maire, E.L. Benedetti</i>	148
The phosphatidylcholine pathway of diacylglycerol formation stimulated by phorbol diesters occurs via phospholipase D activation (FEB 05928) <i>M.C. Cabot, C.J. Welsh, H. Cao, H. Chabbot</i>	153
Effect of calcium and temperature on mixed lipid-valinomycin monolayers: A comparison of glycosphingolipids (ganglioside GT1b, sulphatides) and phosphatidylcholine (FEB 05929) <i>F. Schifferer, H. Beitingner, H. Rahmann, D. Möbius</i>	158
Antibodies against basic fibroblast growth factor inhibit the autocrine growth of pulmonary artery endothelial cells (FEB 05930) <i>M. Sakaguchi, T. Kajio, K. Kawahara, K. Kato</i>	163
Photoaffinity labeling of a 33 kDa protein subunit of the δ -opioid receptor in neuroblastoma and hybrid cell lines (FEB 05931) <i>C. Icard-Liepkalns, P. Bochet</i>	167
Regulation of the β_2 -adrenergic receptor and its mRNA in the rat ventral prostate by testosterone (FEB 05932) <i>S. Collins, V.E. Quarumby, F.S. French, R.J. Lefkowitz, M.G. Caron</i>	173
Bovine type XII collagen: amino acid sequence of a 10 kDa pepsin fragment from periodontal ligament reveals a high degree of homology with the chicken α_1 (XII) sequence (FEB 05933) <i>B. Dublet, E. Dixon, E. de Miguel, M. van der Rest</i>	177
Phosphorylation of neurofilament proteins by protein kinase C (FEB 05936) <i>R.K. Sihag, A.Y. Jeng, R.A. Nixon</i>	181
Use of electrofocusing for the analysis and purification of turkey erythrocytes β_1 -adrenoceptors (FEB 05939) <i>I. Marbach, A. Levitzki</i>	186
Isolation of two blood type A and N specific isolectins from <i>Moluccella laevis</i> seeds (FEB 05934) <i>H. Lis, H. Latter, R. Adar, N. Sharon</i>	191
Calcium uptake by tonoplast and plasma membrane vesicles from spinach leaves (FEB 05938) <i>L. Malatyal, H. Greppin, C. Penel</i>	196
Right atrial dilatation increases inositol-(1,4,5)trisphosphate accumulation: Implications for the control of atrial natriuretic peptide release (FEB 05935) <i>R. von Harsdorf, R. Lang, M. Fullerton, A.I. Smith, E.A. Woodcock</i>	201
Book Reviews and Booklist no. 82	206
Notes to Authors	221
Announcements	223

Foreword

The Early Days of <i>FEBS Letters</i>	iii
List of Editors 1968–1988	iv
Editorial	v

Hypothesis

Extracellular 'communicator RNA' (FEB 05953) <i>S.A. Benner</i>	225
---	-----

Research Letters

Thiol reagents are substrates for the ADP-ribosyltransferase activity of pertussis toxin (FEB 05944) <i>M.D. Lobban, S. van Heyningen</i>	229
Isolation and characterization of two novel calcium-dependent phospholipid-binding proteins from bovine lung (FEB 05940) <i>C.M. Boustead, J.H. Walker, M.J. Geisow</i>	233
Phorbol esters inhibit inositol phosphate and diacylglycerol formation in proliferating HL60 cells: Relationship to differentiation (FEB 05941) <i>B. Geny, C. LePeuch, H. Cost, M. Basset, S. Cockcroft</i>	239
Dual effect of the phorbol ester TPA on arachidonic acid release from HeLa cells (FEB 05942) <i>M. Kaszkin, U. Espe, G. Fürstenberger, V. Kinzel</i>	244
Urodilatin (CDD/ANP-95–126) is not biologically inactivated by a peptidase from dog kidney cortex membranes in contrast to atrial natriuretic peptide/cardioidilatin (α -hANP/CDD-99–126) (FEB 05956) <i>M. Gagelmann, D. Hock, W.-G. Forssmann</i>	249
Specific binding of [H]retinoids to cellular retinoid-binding proteins (FEB 05955) <i>M. Ninomiya, M. Suganuma, N.S. Paik, Y. Muto, H. Fujiki</i>	255
The mitochondrial probe rhodamine 123 inhibits in isolated hepatocytes the degradation of short-lived proteins (FEB 05949) <i>J.L. Vargas, E. Roche, E. Knecht, F. Aniento, S. Grisolia</i>	259
Sphingomyelinases in human, bovine and porcine seminal plasma (FEB 05948) <i>T. Vanha-Perttula</i>	263
Activation of c-Ki-ras coexists with c-myc amplification in cells from a nude mouse tumor induced by the human breast carcinoma cell line SW 613-S (FEB 05951) <i>G. Carloni, B. Champ, M.-J. Vilarem, C. Lavialle, R. Cassingena</i>	268
Processing of preproglycinin expressed from cDNA-encoding A ₁₄ B ₁₆ subunit in <i>Saccharomyces cerevisiae</i> (FEB 05959) <i>S. Utsumi, T. Sato, C.-S. Kim, M. Kito</i>	273
Increased levels of acetylcholine receptor α -subunit mRNA in experimental autoimmune myasthenia gravis (FEB 05957) <i>O. Asher, D. Neumann, S. Fuchs</i>	277
Relationship of promagainin to three other prohormones from the skin of <i>Xenopus laevis</i> : a different perspective (FEB 05937) <i>L.T. Hunt, W.C. Barker</i>	282
A highly selective ligand for brain δ opiate receptors, a ∇^4 Phe ⁴ -enkephalin analog, suppresses μ receptor-mediated thermal analgesia by morphine (FEB 05943) <i>Y. Shimohigashi, Y. Takano, H. Kamiya, T. Costa, A. Herz, C.H. Stammer</i>	289
The low activity of acetyl-CoA carboxylase in basal and glucagon-stimulated hepatocytes is due to phosphorylation by the AMP-activated protein kinase and not cyclic AMP-dependent protein kinase (FEB 05961) <i>A.T.R. Sim, D.G. Hardie</i>	294
Palmitate-binding, serum albumin-like proteins in salmonids (FEB 05952) <i>W.S. Davidson, V.L. Birt, T.P. Birt, J.M. Green</i>	299
Insulin-like growth factor I and insulin reduce epidermal growth factor binding to Swiss 3T3 cells by an indirect mechanism that is apparently independent of protein kinase C (FEB 05962) <i>A.N. Corps, K.D. Brown</i>	303
Kinetics of bimolecular decay of α -tocopheroxyl free radicals studied by ESR (FEB 05947) <i>C. Rousseau-Richard, C. Richard, R. Martin</i>	307
Oxidation of uroporphyrinogens by hydroxyl radicals: Evidence for nonporphyrin products as potential inhibitors of uroporphyrinogen decarboxylase (FEB 05958) <i>J.E. Francis, A.G. Smith</i>	311
Phase II of carotenoid bandshift is mainly due to the electrogenic protonation of the secondary quinone acceptor (FEB 05950) <i>L.A. Drachev, M.D. Mamedov, A. Ya. Mulikidjanian, A.Yu. Semenov, V.P. Shinkarev, M.I. Verkhovsky</i>	315

Analysis of intrasugar interproton NOESY cross-peaks as an aid to determine sugar geometries in DNA fragments (FEB 05945) <i>K.V.R. Chary, S. Modi</i>	319
Protein NMR resonance assignment by isotropic mixing experiments on random fractionally deuterated samples (FEB 05946) <i>D.M. LeMaster</i>	326
Activation energy of the rate constant of $P^+Q_A^-$ absorption decay in reaction centers from <i>Rhodobacter sphaeroides</i> reconstituted with different anthraquinones (FEB 05954) <i>P. Sebban</i>	331
<i>S</i> -(<i>p</i> -Azidophenacyl)thiocarnitine specifically binds to the γ -butyrobetaine-binding protein of <i>Agrobacterium</i> sp. and can be used as a photoaffinity label (FEB 05964) <i>S. Nobile, D. Baccino, J. Deshusses</i>	335
Cysteine proteases: the S_2P_2 hydrogen bond is more important for catalysis than is the analogous S_1P_1 bond (FEB 05965) <i>B. Asbóth, Z. Majer, L. Polgár</i>	339
Isolation and partial characterization of prothymosin α from porcine tissues (FEB 05966) <i>M. Economou, K. Seferiadis, M. Frangou-Lazaridis, B.L. Horecker, O. Tsolas</i>	342
Identification of α -subunit Lys ²⁰¹ and β -subunit Lys ¹⁵⁵ at the ATP-binding sites in <i>Escherichia coli</i> F_1 -ATPase (FEB 05967) <i>M. Tagaya, T. Noumi, K. Nakano, M. Futai, T. Fukui</i>	347
1,4-Dihydropyridine receptor associated with Ca^{2+} channels in human embryonic fibroblasts (FEB 05968) <i>S.M. Dudkin, S.N. Gnedoj, N.N. Chernyuk, N.M. Soldatov</i>	352
The ATP-driven primary Na^+ pump in subcellular vesicles of <i>Vibrio alginolyticus</i> (FEB 05969) <i>P.A. Dibrov, V.P. Skulachev, M.V. Sokolov, M.L. Verkhovskaya</i>	355
The binary complex of pig plasma gelsolin with Mg^{2+} -G-actin in ATP and ADP (FEB 05970) <i>H.E. Harris</i>	359
Kinetic properties of polyphenoloxidase in organic solvents: A study in Brij 96/cyclohexane reverse micelles (FEB 05973) <i>A. Sánchez-Ferrer, R. Bru, F. García-Carmona</i>	363
Degradation of epidermal growth factor receptors by cathepsin L-like protease: inhibition of the degradation by c-Ha-ras gene products (FEB 05980) <i>T. Hiwasa, S. Sakiyama, S. Yokoyama, J.-M. Ha, S. Noguchi, Y. Bando, E. Kominami, N. Katunuma</i>	367
Dissociation of the ligand and dephosphorylation of the platelet-derived growth factor receptor (FEB 05994) <i>E. Sturani, R. Zippel, L. Morello, R. Brambilla, L. Alberghina</i>	371
Identification of an allosteric site residue of a fructose 1,6-bisphosphate-dependent L-lactate dehydrogenase of <i>Thermus caldophilus</i> GK24: production of a non-allosteric form by protein engineering (FEB 05996) <i>H. Matsuzawa, M. Machida, K. Kunai, Y. Ito, T. Ohta</i>	375
³¹ P NMR investigations on free and enzyme bound thiamine pyrophosphate (FEB 05978) <i>S. Flatau, G. Fischer, E. Kleinpeter, A. Schellenberger</i>	379
Detection of anion-linked polymerization of the tetrameric hemoglobin from <i>Scapharca inaequivalvis</i> by ³⁵ Cl NMR spectroscopy (FEB 05972) <i>E. Chiancone, T. Drakenberg, S. Forsén</i>	383
M13 phage DNA as a universal marker for DNA fingerprinting of animals, plants and microorganisms (FEB 05977) <i>A.P. Ryskov, A.G. Jincharadze, M.I. Prosnjak, P.L. Ivanov, S.A. Limborska</i>	388
Recognition of envelope and tat protein synthetic peptide analogs by HIV positive sera or plasma (FEB 05971) <i>D.A. McPhee, B.E. Kemp, S. Cumming, D. Stapleton, I.D. Gust, R.R. Doherty</i>	393
<i>N</i> ⁶ -Methyladenine in mitochondrial DNA of higher plants (FEB 05995) <i>B.F. Vanyushin, N.I. Alexandrushkina, M.D. Kirnos</i>	397
Effect of amrinone on myocardial mitochondria function (FEB 05998) <i>V. Bobyleva-Guarriero, C. Mussini, U. Muscatello, C. Cappello, G. Mattioli</i>	400
Two distinct types of ϵ -binding site exist in chloroplast coupling factor (CF ₁) (FEB 05974) <i>P.J. Andralojc, D.A. Harris</i>	403
Photosystem II disorganization and manganese release after photoinhibition of isolated spinach thylakoid membranes (FEB 05997) <i>I. Virgin, S. Styring, B. Andersson</i>	408
Release of the nocturnal inhibitor, carboxyarabinitol-1-phosphate, from ribulose biphosphate carboxylase/oxygenase by rubisco activase (FEB 05981) <i>S.P. Robinson, A.R. Portis, jr</i>	413

Purification and characterisation of two forms of toxin B produced by <i>Clostridium difficile</i> (FEB 05992) J.F. Torres, I. Lönnroth	417
Is the acetylcholine releasing protein mediatophore present in rat brain? (FEB 05979) M. Israël, B. Lesbats, N. Morel, R. Manaranche, G. Le Gal la Salle	421
Vitamin E and selenium regulate balance between β -adrenergic and muscarinic responses in rat lungs (FEB 05993) C.J.A. Doelman, K. Kramer, H. Timmerman, A. Bast	427
Automated Sanger dideoxy sequencing reaction protocol (FEB 06022) J. Zimmerman, H. Voss, C. Schwager, J. Stegemann, W. Ansorge	432

Correspondence

Taurine and neuronal resistance to hypoxia (FEB 05975) A. Lehmann, H. Hagberg, P. Andiné, K. Ellrén	437
A reply to the commentary of Lehmann et al. (FEB 05976) A. Schurr, B.M. Rigor	439
Corrigenda and Errata	440
Author Index	442
Table of Contents	448
Notes to Authors	453