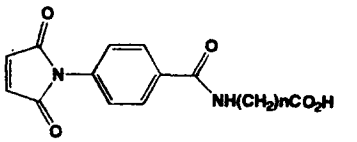
*Bioorg. Med. Chem.* **1995**, *3*, 1299

## Conjugation of Doxorubicin to Monoclonal Anti-carcinoembryonic Antigen Antibody via Novel Thiol-directed Cross-linking Reagents

Achilles Lau,[a] Gervais Bérubé[b]* and Christopher H. J. Ford[c]
*[a]School of Pharmacy and [c]Oncology Research Laboratory, Memorial University of Newfoundland, St John's, Newfoundland, Canada, A1B 3V6; [b]Département de chimie-biologie, Université du Québec à Trois-Rivières, C. P. 500, Trois-Rivières, PQ, Canada, G9A 5H7*

Two new maleimidobenzoyl spacers have been synthesized in a one step process from 4-maleimidobenzoic acid. These spacers are selectively attached to $NH_2$-3' of the daunosamine moiety of doxorubicin before being conjugated to a monoclonal antibody.

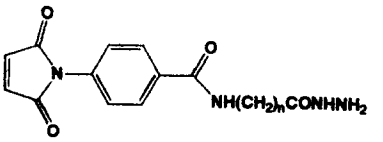



*Bioorg. Med. Chem.* **1995**, *3*, 1305

## Novel Doxorubicin–Monoclonal Anti-carcinoembryonic Antigen Antibody Immunoconjugate Activity *in vitro*

Achilles Lau,[a] Gervais Bérubé,[b]* Christopher H. J. Ford[c] and Maureen Gallant[c]
*[a]School of Pharmacy and [c]Oncology Research Laboratory, Memorial University of Newfoundland, St John's, Newfoundland, Canada, A1B 3V6; [b]Département de chimie-biologie, Université du Québec à Trois-Rivières, C. P. 500, Trois-Rivières, PQ, Canada, G9A 5H7*

Doxorubicin was modified with five different heterobifunctional reagents to produce drug analogs containing 3'-*N*-amide or C-13 hydrazone linkage with maleimide. All Dox maleimido derivatives were conjugated to a monoclonal antibody and tested for biological activity.




*Bioorg. Med. Chem.* **1995**, *3*, 1313

## IDENTIFICATION OF AN ALDOSE REDUCTASE INHIBITOR SITE BY AFFINITY LABELING,

Peter F. Kador*, Yong S. Lee, Libaniel Rodriguez, Sanai Sato, Anita Bartoszko-Malik, Yasser S. Abdel-Ghany[a] and Duane D. Miller[a] *Lab. of Ocular Therapeutics, National Eye Institute, N.I.H., Bethesda, MD 20892 [a]Div. of Medicinal Chemistry and Natural Products, College of Pharmacy, the Ohio State University, Columbus, OH. 20814*

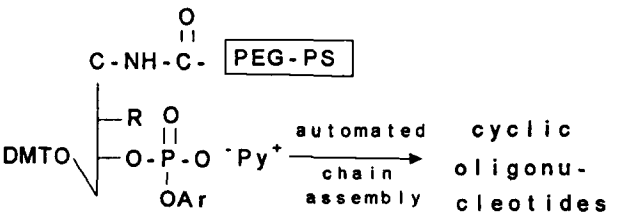
**Abstract:** Using a 5-iodoacetamido analog of alrestatin as an affinity labelled aldose reductase inhibitor, an inhibitor binding site on aldose reductase has been located that is distinct from the site reported by co-crystallization with zopolrestat. Its location and composition is consistent with reported kinetic data, SAR observations, stereochemical requirements, and quantum chemical calculations.

*Bioorg. Med. Chem.* **1995**, *3*, 1325

## AUTOMATED SOLID PHASE SYNTHESIS OF CYCLIC OLIGONUCLEOTIDES: A FURTHER IMPROVEMENT

**L.De Napoli, A. Galeone, L. Mayol, A., Messere D.Montesarchio and G. Piccialli**

**Abstract** - The solid phase approach for the preparation of cyclic oligodeoxy- and oligo-ribonucleotides was improved thus allowing fully automated synthesis of larger DNA and RNA circles, using commercially available amidite building blocks .

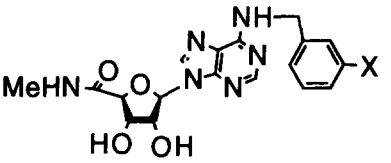


*Bioorg. Med. Chem.* **1995**, *3*, 1331

## Comparative Molecular Field Analysis of Selective $A_3$ Adenosine Receptor Agonists

Suhaib M. Siddiqi,[a] Robert A. Pearlstein,[b] Lawrence H. Sanders[a] and Kenneth A. Jacobson[a]*
*[a]Molecular Recognition Section, Laboratory of Bioorganic Chemistry, National Institute of Diabetes, Digestive and Kidney Diseases, National Institutes of Health, Bethesda, MD 20892, U.S.A.; [b]Division of Computer Research and Technology, National Institutes of Health, Bethesda, MD 20892, U.S.A.*

**Abstract**—Quantitative structure–activity relationship of a series of $N^6$-benzyladenosine 5'-uronamide derivatives demonstrated bulk tolerance at the 3-position of the benzyl ring.

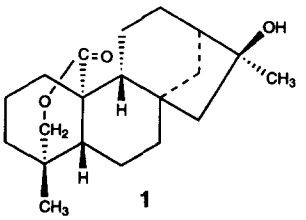



*Bioorg. Med. Chem.* **1995**, *3*, 1345

## Anti-AIDS Agents—XIX. Neotripterifordin, a Novel Anti-HIV Principle from *Tripterygium wilfordii*: Isolation and Structural Elucidation

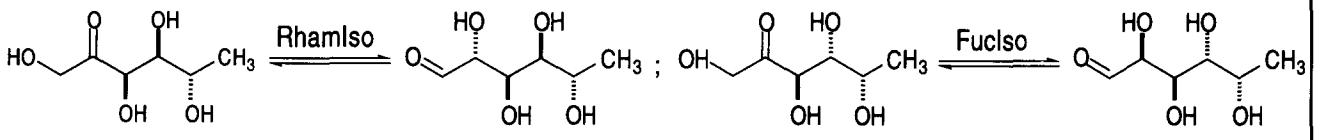
K. Chen,[a] Q. Shi,[a] T. Fujioka,[a] T. Nakano,[a] C.-Q. Hu,[b] J.-Q. Jin,[b] R. E. Kilkuskie,[c] and K.-H. Lee[a]*
*[a]Natural Products Laboratory, Division of Medicinal Chemistry and Natural Products, School of Pharmacy, University of North Carolina, Chapel Hill, NC 27599, U.S.A.; [b]Department of Chemistry of Natural Drugs, School of Pharmacy, Shanghai Medical University, Shanghai 200032, People's Republic of China; [c]Biotech Research Laboratories, 3 Taft Court, Rockville, MD 20850, U.S.A.*

**Abstract**—A new diterpene, neotripterifordin (**1**), was isolated from *Tripterygium wilfordii*. Compound **1** showed potent anti-HIV replication activity in H9 lymphocytes with an $EC_{50}$ of 25 nM.




*Bioorg. Med. Chem.* **1995**, *3*, 1349

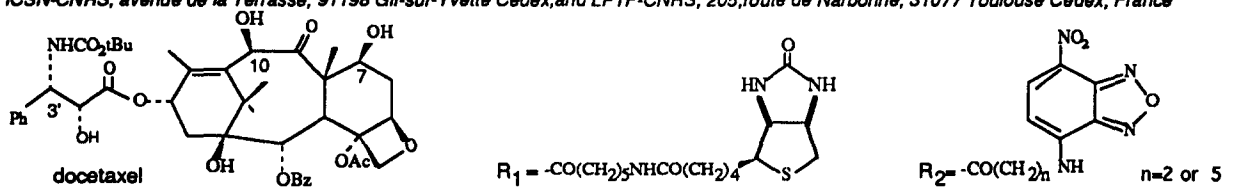
**CLONING AND OVEREXPRESSION OF RHAMNOSE ISOMERASE AND FUCOSE ISOMERASE.** Eduardo Garcia-Junceda, Gwo-Jenn Shen, Ramon Alajarin and Chi-Huey Wong*, *Department of Chemistry, The Scripps Research Institute,10666 North Torrey Pines Road, La Jolla, California 92037 USA.*




*Bioorg. Med. Chem.* **1995**, *3*, 1357

## Fluorescent and Biotinylated Analogues of Docetaxel : Synthesis and Biological Evaluation

J.Dubois, M.T.LeGoff, F.Guéritte-Voegelein, D.Guénard,Y.Tollon, M.Wright
*ICSN-CNRS, avenue de la Terrasse, 91198 Gif-sur-Yvette Cedex,and LPTF-CNRS, 205,route de Narbonne, 31077 Toulouse Cedex, France*




**Abstract:** Synthesis and biological evaluation of analogues of docetaxel bearing biotinyl ($R_1$) or fluorescent ($R_2$) probes at C-7, C-10 or NH-3' are reported.

*Bioorg. Med. Chem.* **1995**, *3*, 1369

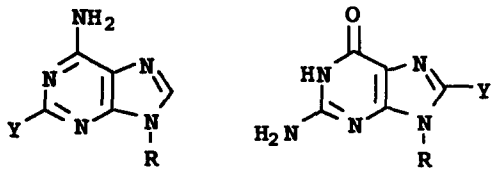
## Synthesis of [Phe(4F)$^3$]Thymopoietin II and Examination of its Immunological Effect on the Impaired Blastogenic Response of T-Lymphocytes of Uremic Patients

T. Abiko* and H. Sekino
*Kidney Research Laboratory, Kojinkai, 1-6 Tsutsujigaoka 2-chome, Miyagino-ku, Sendai 980, Japan*

[Phe(4F)$^3$]Thymopoietin II was synthesized by a conventional solution method and its restoring effect on the impaired blastogenic response of T-lymphocytes was tested.

*Bioorg. Med. Chem.* **1995**, *3*, 1377

**SYNTHESIS AND ANTIVIRAL EFFECTS OF 2-HETEROARYL SUBSTITUTED ADENOSINE AND 8-HETEROARYL SUBSTITUTED GUANOSINE DERIVATIVES** T. Persson, S. Gronowitz* and A.-B. Hörnfeldt, Organic Chemistry 1, Chemical Center, Box 124, S-221 00 Lund; N. G. Johansson, Medivir AB, Lunastigen 7, 141 44 Huddinge, Sweden



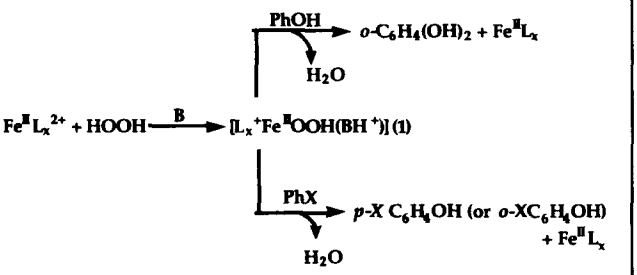

Y; 2- and 3-thienyl, 2- and 3-furyl

*Bioorg. Med. Chem.* **1995**, *3*, 1383

## Aromatic Hydroxylation by Fenton Reagents {Reactive Intermediate[$L_x{}^+Fe^{II}OOH(BH^+)$], not Free Hydroxyl Radical (HO·)}

John P. Hage, Antoni Llobet, and Donald T. Sawyer*
*Department of Chemistry, Texas A&M University, College Station, Texas 77843-3255, U.S.A.*

**Abstract**—Iron(II) complexes [$Fe^{II}L_x{}^{2+}$; $Fe^{II}(bpy)_2{}^{2+}$, $Fe^{II}(OPPh_3)_4{}^{2+}$, $Fe^{II}(PA)_2$ (PAH = picolinic acid)] catalytically activate hydrogen peroxide via Fenton chemistry for the hydroxylation of aromatic molecules (PhX).




*Bioorg. Med. Chem.* **1995**, *3*, 1389

## Description of Hydrophobicity Parameters of a Mixed Set From Their Three-dimensional Structures

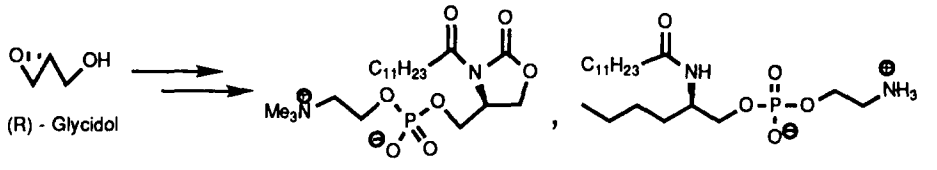
Ki H. Kim and Daniel H. Kim
*Pharmaceutical Products Division, Abbott Laboratories, 100 Abbott Park Road, Abbott Park, IL 60064, U.S.A.*

The logarithm of capacity factors (log *k'*) previously measured from the reversed-phase high-performance liquid chromatography (RP-HPLC) and the octanol–water partition coefficients (log *P*) of a mixed set of substituted benzene, furan, pyrrole, 1-methylpyrrole, benzofuran, indole, and 1-methylindole derivatives are correlated with the descriptors obtained from their three-dimensional structures using the comparative molecular field analysis (CoMFA) approach.

*Bioorg. Med. Chem.* **1995**, *3*, 1397

## New Phospholipase A2 Inhibitor: Synthesis and Inhibition Mechanism of Oxazolidinone Phospholipid Analog

Seiji Iwama,[a)] Takeshi Matsuda,[a)] Shigeo Katsumura,[a)]* Takeshi Tani,[b)] Shinobu Fujii,[b)] Kiyoshi Ikeda,[b)] and Hideki Takehara[c)]
a) School of Science, Kwansei Gakuin University, Uegahara, Nishinomiya, Hyogo 662, Japan. b) Department of Biochemistry, Osaka University of Pharmaceutical Sciences, Matsubara, Osaka 580, Japan. c) Computational Science Department, Asahi Chemical Industry Co., Ltd., Fuji, Shizuoka 416, Japan




*Bioorg. Med. Chem.* **1995**, *3*, 1405

## Amino Hydroxamic Acids as Potent Inhibitors of Leukotriene $A_4$ Hydrolase

J. Heather Hogg,[a] Ian R. Ollmann,[a] Jesper Z. Haeggström,[b] Anders Wetterholm,[b] Bengt Samuelsson[b] and Chi-Huey Wong[a]*
[a]*Department of Chemistry, The Scripps Research Institute, La Jolla, CA 92037, U.S.A.* [b]*Department of Medical Biochemistry and Biophysics, Karolinska Institutet, Stockholm, Sweden.*