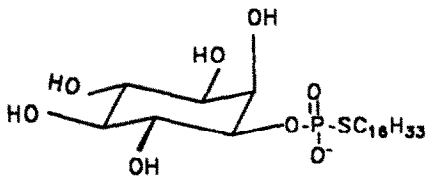
GRAPHICAL ABSTRACTS

BioMed. Chem. **1994,** *2,* 147

SYNTHESIS OF OPTICALLY-ACTIVE HEXADECYL THIOPHOSPHORYL-1-D-*myo*-INOSITOL: A THIOPHOSPHATE ANALOG OF PHOSPHATIDYLINOSITOL.

Anatoliy S. Bushnev, Elizabeth K. Hendrickson, Vitaliy I. Shvets, H. Stewart Hendrickson*
Department of Chemistry, St. Olaf College, Northfield, MN (USA), and The Lomonosov Institute of Fine Chemical Technology, Moscow (Russia)

Abstract: Hexadecyl thiophosphoryl-1-D-*myo*-inositol was synthesized from *2,3-O-(D-1',7',7'-trimethyl[2.2.1]bicyclohept-2'-ylidene)-4,5,6-O-tris(methoxymethyl)-D-myo-inositol* or *2,3,4,5,6-O-pentakis(methoxymethyl)-D-myo-inositol.*

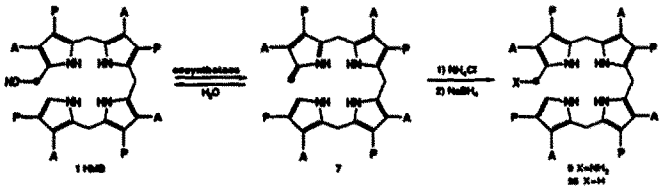


BioMed. Chem. **1994,** *2,* 153

EVIDENCE FOR AN INTERMEDIATE IN THE ENZYMATIC FORMATION OF UROPORPHYRINOGEN III.

Clotilde Pichon*, Barbara P. Atshaves, Neal J. Stolowich and A. Ian Scott*.
Center for Biological NMR, Department of Chemistry, Texas A&M University, College Station, Texas, 77843-3255, USA.

Evidence of an azafulvene intermediate **7** has been obtained by trapping with ammonium ions and sodium borohydride.

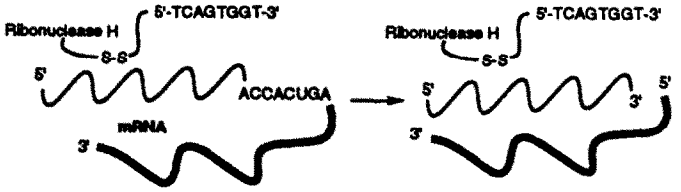


BioMed. Chem. **1994,** *2,* 169

Sequence Specific Cleavage of Messenger RNA by a Modified Ribonuclease H

Wu Po Ma, Susan E. Hamilton, Joseph G. Stowell, Stephen R. Byrn, and V. Jo Davisson*Department of Medicinal Chemistry and Pharmacognosy, 1333 Robert E. Heine Pharmacy Building, Purdue University, West Lafayette, IN 47907-1333

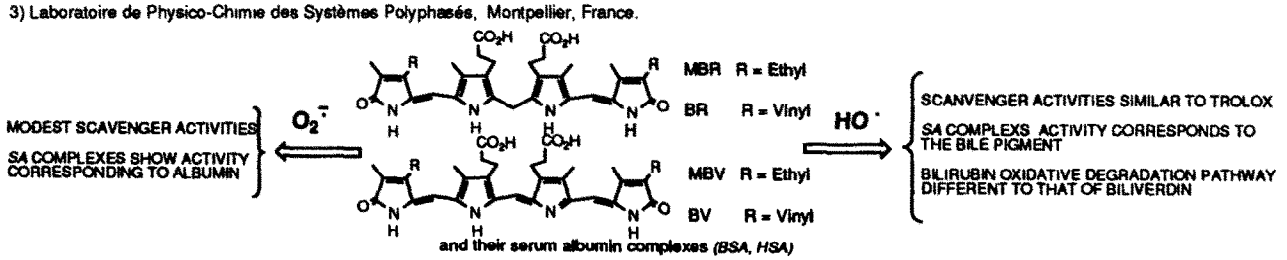
An oligonucleotide-RNase H conjugate has been prepared that cleaves a mRNA molecule at a specified sequence. The conjugate retains only 0.3% of the normal sequence independent RNase H activity demonstrating that substrate recognition can be modulated by a covalent appendage.



BioMed. Chem. **1994,** *2,* 181

THE ANTIOXIDANT ROLE OF BILE PIGMENTS EVALUATED BY CHEMICAL TESTS

Joan-Anton Farrera[1], Alexandre Jaumà[1], Josep M. Ribó*[1], Maria Asunción Peiré[2], Pere Puig Parellada[2], Sylvie Roques-Choua[3], Elisabeth Bienvenue[3] and Patrick Seta[3]
1) Departament de Química Orgànica, 2) Department de Farmacologia: Universitat de Barcelona, Spain
3) Laboratoire de Physico-Chimie des Systèmes Polyphasés, Montpellier, France.



BioMed. Chem. **1994**, 2, 187

Novel Bishydroxamic Acids As 5-Lipoxygenase Inhibitors

K. A. Ohemeng, V. N. Nguyen, C. F. Schwender, M. Singer, M. Steber, J. Ansell and W. Hageman.
Discovery Research, The R.W. Johnson Pharmaceutical Research Institute, Raritan, NJ 08869.

Two series of novel bishydroxamic acids **2** and **3** (types A and B) were synthesized and tested for inhibition of 5-lipoxygenase from rat basophile leukemia (RBL) cells . Only the type B reverse hydroxamic acids possessed significant oral activity in a mouse zymosan peritonitis model. The most potent compound, orally, was **3a**, [IC_{50} = 270ηM; ED_{50} = 1.86 mg/kg], which compares favorably with the clinically useful 5-lipoxygenase inhibitor, zileuton. Compound **4e** [IC_{50} = 7ηM], a monohydroxamic acid derivative related to **3a**, is among the most potent inhibitors of the isolated enzyme yet to be reported.

BioMed. Chem. **1994**, 2, 195

THEORETICAL QUANTITATIVE STRUCTURE-ACTIVITY RELATIONSHIP ANALYSIS ON THREE DIMENSIONAL MODELS OF LIGAND-m1 MUSCARINIC RECEPTOR COMPLEXES

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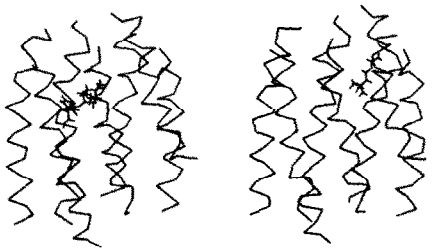

BioMed. Chem. **1994**, 2, 213

SYNTHESIS OF 5- AND 6-FLUORO DERIVATIVES OF 5, 8,14-EICOSATRIENOIC AND 5,8,11,14-EICOSATETRAENOIC ACIDS. EFFECTS OF FLUORINATED ARACHIDONIC ACIDS ON LEUKOTRIENE C_4 PRODUCTION BY MACROPHAGES

J.B. Ducep*, J.F. Navé, P.R. Zimmermann *Marion Merrell Dow Research Institute, Strasbourg Research Center,16, rue d'Ankara, BP 067, 67046 Strasbourg-Cedex, France*

Fluorinated analogs of arachidonic acid were synthesized from dimethyl fluoromaleate 11.
The effect of 5- and 6-fluoro arachidonic acids on leukotriene C_4 production by mouse peritoneal macrophages was evaluated.