

[Prostaglandins, 41, 375-382 (1991)]

[Lab. of Pharmacology]

The Effect of ONO-3708, a Novel TXA₂ Receptor Antagonist, on U-46619-Induced Contraction of Guinea Pig and Human Tracheal Strips in vitro and on Bronchoconstriction in Guinea Pigs in vivo.

H. NAGAI, F. TSUJI, N. INAGAKI, K. KITAGAKI,

O. FUKUTOMI, A. KODA*, M. DAIKOKU

Effect of ONO-3708 on U-46619-induced contraction of airway smooth muscle in the guinea pig and human in vitro and bronchoconstriction in the guinea pig in vivo was investigated. ONO-3708 inhibited U-46619-induced contraction of isolated tracheal muscle. Contractions of guinea pig tracheal muscle caused by histamine and LTD₄ were not inhibited. ONO-3708 inhibited the U-46619-induced increase in airway insufflation pressure and airway reactivity to acetylcholine in vivo.

[Biochim. Biophys. Acta, 1085, 191-200 (1991)]

[Lab. of Pharmacology]

Arachidonic Acid Metabolism during Antigen and Ionophore Activation of the Mouse Bone Marrow Derived Mast Cell.

T. NAKAMURA, A.N. FONTEH, W.C. HUBBARD, M. TRIGGIANI,

N. INAGAKI*, T. ISHIZAKA, F.H. CHILTON

The metabolism of arachidonic acid in the mouse bone marrow-derived mast cell (BMMC) during immunologic and nonimmunologic activation was examined. The predominant pools of endogenous arachidonate in BMMC were found in ethanolamine, choline and inositol containing glycerolipids. Upon challenge, arachidonate was lost from all major phospholipid classes and phosphatidic acid increased. 2-Lysophospholipids were also detected. Present results suggest that arachidonate is mobilized predominantly from ethanolamine-linked phosphoglycerides.

[Chem. Pharm. Bull., 39, 2024-2036 (1991)]

[Lab. of Pharmacology]

Isolation and Characterization of Phenolic Compounds from Magnoliae Cortex Produced in China.

S. YAHARA, T. NISHIYORI, A. KODA*, T. NOHARA, I. NISHIOKA

A chemical examination of Magnoliae Cortex in China has led to the isolation of eighteen new lignans and related compounds [four monoterpenyl-lignans: pipertylmagnolol, dipiperitylmagnolol, piperitylhonokiol and bornylmagnolol; seven lignans: magnaldehydes B, C, magnolignans A, B, C, D and E; three norlignans: magnatriol B, magnaldehydes D and E; and four dilignans: magnolignans F, G, H and I], together with randainal, randaiol, sinapic aldehyde, syringaresinol, syringaresinol 4'-O- β -D-glucopyranoside and 6'-O-methylhonokiol. Their structures were determined by the chemical and spectral methods.