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Biochemical Pharmacology





Biochemical Pharmacology, Volume 78, issue 1, 1 July 2009 Contents

COMMENTARY

UNBS1450 from *Calotropis procera* as a regulator of signaling pathways involved in proliferation and cell death

p 1-10

Tom Juncker, Marc Schumacher, Mario Dicato, Marc Diederich

Representation of the pharmacologically important potentials of *Calotropis procera* extracts.



X-ray structure breakthroughs in the GPCR transmembrane region

p 11-20

Sid Topiol, Michael Sabio

Recently published GPCR X-ray structures offer the opportunity to better understand molecular mechanisms of action at the atomic level and deploy X-ray structures for their use in structure-based design.

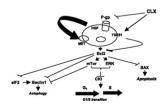
ANTIBIOTICS AND CHEMOTHERAPEUTICS

Down-regulation of the HGF/MET autocrine loop induced by celecoxib and mediated by P-gp in MDR-positive human hepatocellular carcinoma cell line

p 21-32

Roberto Mazzanti, Francesca Platini, Consuelo Bottini, Ornella Fantappiè, Michela Solazzo, Luciana Tessitore

The *in vitro* pro-autophagic, antiproliferative and pro-apoptotic effect of celecoxib on MDR-positive cells is mediated by the action of P-glycoprotein (P-gp) on the HGF/MET autocrine loop.

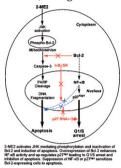


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Bcl-2 blocks 2-methoxyestradiol induced leukemia cell apoptosis by a p27^{Kip1}-dependent G1/S cell cycle arrest in conjunction with NF-_KB activation

p 33-44

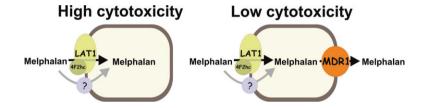
Christina Batsi, Soultana Markopoulou, Evangelos Kontargiris, Christiana Charalambous, Christoforos Thomas, Savvas Christoforidis, Panagiotis Kanavaros, Andreas I. Constantinou, Kenneth B. Marcu, Evangelos Kolettas



Influx and efflux transport as determinants of melphalan cytotoxicity: Resistance to melphalan in MDR1 overexpressing tumor cell lines

p 45-53

Annett Kühne, Mladen Vassilev Tzvetkov, Yohannes Hagos, Hermann Lage, Gerhard Burckhardt, Jürgen Brockmöller



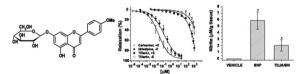
CARDIOVASCULAR PHARMACOLOGY

Antihypertensive and vasorelaxant effects of tilianin isolated from Agastache mexicana are mediated by NO/cGMP pathway and potassium channel opening

p 54-61

Oswaldo Hernández-Abreu, Patricia Castillo-España, Ismael León-Rivera, Maximiliano Ibarra-Barajas, Rafael Villalobos-Molina, Judith González-Christen, Jorge Vergara-Galicia, Samuel Estrada-Soto

Tilianin mediates relaxation by an endothelium-dependent manner, probably due to NO release, and also through an endothelium-independent pathway by opening K+ channels, both causing the antihypertensive effect.



Differential interactions of the catalytic subunits of adenylyl cyclase with forskolin analogs

p 62-69

Cibele Pinto, Melanie Hübner, Andreas Gille, Mark Richter, Tung-Chung Mou, Stephen R. Sprang, Roland Seifert

Using purified catalytic adenylyl cyclase subunits as model, this paper demonstrates differential interaction of forskolin analogs with the enzyme and provides evidence for a two-step activation process.

INFLAMMATION AND IMMUNOPHARMACOLOGY

HIV protease inhibitor lopinavir-induced TNF- α and IL-6 expression is coupled to the unfolded protein response and ERK signaling pathways in macrophages

p 70-77

Li Chen, Sirikalaya Jarujaron, Xudong Wu, Lixin Sun, Weibin Zha, Guang Liang, Xuan Wang, Emily C. Gurley, Elaine J. Studer, Phillip B. Hylemon, William M. Pandak Jr., Luyong Zhang, Guangji Wang, Xiaokun Li, Paul Dent, Huiping Zhou

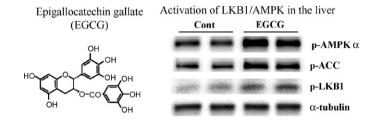


METABOLIC DISORDERS AND ENDOCRINOLOGY

Catechin-induced activation of the LKB1/AMP-activated protein kinase pathway

p 78-84

Takatoshi Murase, Koichi Misawa, Satoshi Haramizu, Tadashi Hase



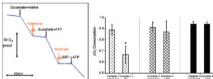
NEUROPHARMACOLOGY

Mitochondrial complex I as a novel target for intraneuronal DA: Modulation of respiration in intact cells

p 85-95

Hanit Brenner-Lavie, Ehud Klein, Dorit Ben-Shachar

A role for mitochondria in synaptic potentiation, neurotransmission, and synaptic plasticity has been reported. Here we show that the neurotransmitter dopamine is able to reciprocally affect mitochondrial function in intact neuronal cells by the inhibition of the first complex of the mitochondrial respiratory system. We discuss the relevance of such an interaction to schizophrenia.



PHARMACOKINETICS AND DRUG METABOLISM

Characterization of *Escherichia coli* nitroreductase NfsB in the metabolism of nitrobenzodiazepines

p 96-103

Shiuan-Woei LinWu, Cheng-Jie Syu, Yu-Lian Chen, Andrew H.-J. Wang, Fu-Chuo Peng

Reductive metabolism of nitrobenzodiazepine (NBDZ) flunitrazepam (FZ), nitrazepam (NZ) and clonazepam (CZ) by the jejunal Escherichia coli nitroreductase NfsB.

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Note to Readers

Note to readers p 104–104

S.J. Enna

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