

MOLECULAR PHARMACOLOGY

February 2010

Volume 77

Number 2

molpharm.aspetjournals.org

ISSN 0026-895X

MINIREVIEWS

Structure and Function of Heterotrimeric G Protein-Regulated Rho Guanine Nucleotide Exchange Factors

Mohamed Aittaleb, Cassandra A. Boguth, and John J. G. Tesmer

111

Is There a Future for Histone Deacetylase Inhibitors in the Pharmacotherapy of Psychiatric Disorders?

Dennis R. Grayson, Marija Kundakovic, and Rajiv P. Sharma

126

PERSPECTIVE

G Protein-Mediated Inhibition of Ca_v3.2 T-Type Channels Revisited 

Edward Perez-Reyes

136

ARTICLES

Analgesic ω -Conotoxins CVIE and CVIF Selectively and Voltage-Dependently Block Recombinant and Native N-Type Calcium Channels


G. Berecki, L. Motin, A. Haythornthwaite, S. Vink, P. Bansal, R. Drinkwater, C. I. Wang, M. Moretta, R. J. Lewis, P. F. Alewood, M. J. Christie, and D. J. Adams

139

 A Novel Multilevel Statistical Method for the Study of the Relationships between Multireceptorial Binding Affinity Profiles and In Vivo Endpoints

Jana Selent, Anna Bauer-Mehren, Laura López, María Isabel Loza, Ferran Sanz, and Manuel Pastor

149

 Identification of Novel Small-Molecule Agonists for Human Formyl Peptide Receptors and Pharmacophore Models of Their Recognition

Liliya N. Kirpotina, Andrei I. Khlebnikov, Igor A. Schepetkin, Richard D. Ye, Marie-Josèphe Rabiet, Mark A. Jutila, and Mark T. Quinn

159

15-Hydroxyeicosatetraenoic Acid Is a Preferential Peroxisome Proliferator-Activated Receptor β/δ Agonist

Simone Naruhn, Wolfgang Meissner, Till Adhikary, Kerstin Kaddatz, Thomas Klein, Bernhard Watzler, Sabine Müller-Brüsselbach, and Rolf Müller

171

Increased Spinal Dynorphin Levels and Phospho-Extracellular Signal-Regulated Kinases 1 and 2 and c-Fos Immunoreactivity after Surgery under Remifentanyl Anesthesia in Mice

Ana Campillo, Ana González-Cuello, David Cabañero, Paula Garcia-Nogales, Asunción Romero, M. Victoria Milanés, M. Luisa Laorden, and Margarita M. Puig

185

Aryl Hydrocarbon Receptor Regulates Cell Cycle Progression in Human Breast Cancer Cells via a Functional Interaction with Cyclin-Dependent Kinase 4

Melissa A. Bar Hoover, Julie M. Hall, William F. Greenlee, and Russell S. Thomas

195

The  symbols in the table of contents identify articles discussed in the *Perspective*.

Molecular Pharmacology (ISSN 0026-895X) is published monthly (two volumes per year beginning in January and July) by the American Society for Pharmacology and Experimental Therapeutics, 9650 Rockville Pike, Bethesda, MD 20814-3995; e-mail: subscriptions@aspet.org; Web site: aspet.org. Periodicals postage paid at Bethesda, MD, and at additional mailing offices. POSTMASTER: Send address changes to *Molecular Pharmacology*, 9650 Rockville Pike, Bethesda, MD 20814-3995. Subscription rates: U.S.: \$707.00; outside the U.S.: \$799.00. Single copy: \$63.00. GST Tax Number for Canadian sub-

scribers: BN:13489 2330 RT. Indexed or abstracted by *Biochemistry & Biophysics Citation Index*[®], *Biological Abstracts*, *Current Awareness in Biological Sciences*, *Current Contents*[®]/*Life Sciences*, *EMBASE/Excerpta Medica*, *Index Medicus*, *Medical Documentation Service*[®], *Reference Update*[®], *Research Alert*[®], *Science Citation Index*[®], and *SciSearch*[®]. Copyright © 2010 by the American Society for Pharmacology and Experimental Therapeutics. All rights reserved. Printed in the U.S.A.

☐	Protein Kinase C-Mediated Inhibition of Recombinant T-Type Ca _v 3.2 Channels by Neurokinin 1 Receptors <i>Azahel Rangel, Sergio Sánchez-Armass, and Ulises Meza</i>	202
	CCR2 Receptor Ligands Inhibit Ca _v 3.2 T-Type Calcium Channels <i>Haitao You, Christophe Altier, and Gerald W Zamponi</i>	211
	A Comparison of the Roles of Peroxisome Proliferator-Activated Receptor and Retinoic Acid Receptor on CYP26 Regulation <i>Suzanne Tay, Leslie Dickmann, Vaishali Dixit, and Nina Isoherranen</i>	218
	The Benzenesulfoamide T0901317 [<i>N</i> -(2,2,2-Trifluoroethyl)- <i>N</i> -[4-[2,2,2-trifluoro-1-hydroxy-1-(trifluoromethyl)ethyl]phenyl]-benzenesulfonamide] Is a Novel Retinoic Acid Receptor-Related Orphan Receptor- α/γ Inverse Agonist <i>Naresh Kumar, Laura A. Solt, Juliana J. Conkright, Yongjun Wang, Monica A. Istrate, Scott A. Busby, Ruben D. Garcia-Ordóñez, Thomas P. Burris, and Patrick R. Griffin</i>	228
	The 5'-Untranslated Region of Multidrug Resistance Associated Protein 2 (MRP2; ABCC2) Regulates Downstream Open Reading Frame Expression through Translational Regulation <i>Yuanyuan Zhang, Tianyong Zhao, Wei Li, and Mary Vore</i>	237
☐	Evidence for Ligand-Mediated Selective Modulation of Aryl Hydrocarbon Receptor Activity <i>Iain A. Murray, Jose L. Morales, Colin A. Flaveny, Brett C. DiNatale, Chris Chiaro, Krishnegowda Gowdahalli, Shantu Amin, and Gary H. Perdew</i>	247
☐	A Novel Roscovitine Derivative Potently Induces G ₁ -Phase Arrest in Platelet-Derived Growth Factor-BB-Activated Vascular Smooth Muscle Cells <i>Irene M. Sroka, Elke H. Heiss, Libor Havlicek, Frank Totzke, Yasmin Aristei, Paul Pechan, Michael H. G. Kubbutat, Miroslav Strnad, and Verena M. Dirsch</i>	255
	Identification of Dynamin-2-Mediated Endocytosis as a New Target of Osteoporosis Drugs, Bisphosphonates <i>Yuka Masaike, Takeshi Takagi, Masataka Hirota, Joe Yamada, Satoru Ishihara, Tetsu M. C. Yung, Takamasa Inoue, Chika Sawa, Hiroshi Sagara, Satoshi Sakamoto, Yasuaki Kabe, Yasuyuki Takahashi, Yuki Yamaguchi, and Hiroshi Handa</i>	262
☐	Dependence of Multidrug Resistance Protein-Mediated Cyclic Nucleotide Efflux on the Background Sodium Conductance <i>Marek Kucka, Karla Kretschmannova, Takayo Murano, Chung-Pu Wu, Hana Zemkova, Suresh V. Ambudkar, and Stanko S. Stojilkovic</i>	270
	An Inhibitor of Protein Arginine Methyltransferases, 7,7'-Carbonylbis(azanediyl)bis(4-hydroxynaphthalene-2-sulfonic acid (AMI-1), Is a Potent Scavenger of NADPH-Oxidase-Derived Superoxide <i>Feng Chen and David J. R. Fulton</i>	280
	Role of Helix 8 of the Thyrotropin-Releasing Hormone Receptor in Phosphorylation by G Protein-Coupled Receptor Kinase <i>Austin U. Gehret, Brian W. Jones, Phuong N. Tran, Laurie B. Cook, Emileigh K. Greuber, and Patricia M. Hinkle</i>	288
☐	Cisplatin Enhances Protein Kinase R-Like Endoplasmic Reticulum Kinase- and CD95-Dependent Melanoma Differentiation-Associated Gene-7/Interleukin-24-Induced Killing in Ovarian Carcinoma Cells <i>Adly Yacoub, Renyan Liu, Margaret A. Park, Hossein A. Hamed, Rupesh Dash, Danielle N. Schramm, Devanand Sarkar, Igor P. Dimitriev, Jessica K. Bell, Steven Grant, Nicholas P. Farrell, David T. Curiel, Paul B. Fisher, and Paul Dent</i>	298
☐	Dependence on the Microtubule Network and 90-kDa Heat Shock Protein of Phenobarbital-Induced Nuclear Translocation of the Rat Constitutive Androstane Receptor <i>Yuichiro Kanno, Yasuo Miyama, Mina Ando, and Yoshio Inouye</i>	311
☐	Supplemental material is available online at http://molpharm.aspetjournals.org .	