

Contents

ACCELERATED COMMUNICATION

- | | | |
|-----|--|--|
| 793 | Nucleotide Independent Modulation of Ca ²⁺ -Dependent K ⁺ Channel Current by a μ -Type Opioid Receptor | Wayne A. Twitchell and Stanley G. Rane |
|-----|--|--|

ARTICLES

- | | | |
|-----|--|--|
| 799 | Chimeric Human and Rat Serotonin Transporters Reveal Domains Involved in Recognition of Transporter Ligands | Eric L. Barker, Heather L. Kimmel, and Randy D. Blakely |
| 808 | Functional Reconstitution of Platelet Thromboxane A ₂ Receptors with Purified G _q and G ₁₂ in Phospholipid Vesicles | Fumitaka Ushikubi, Ken-ichi Nakamura, and Shuh Narumiya |
| 817 | Binding of [³ H]KF17837S, a Selective Adenosine A ₂ Receptor Antagonist, to Rat Brain Membranes | Hiromi Nonaka, Akihisa Mori, Michio Ichimura, Tomomi Shindou, Kogi Yanagawa, Junichi Shimada, and Hiroshi Kase |

continued

ANNOUNCEMENT

Effective January 1, 1995 all manuscripts for submission to MOLECULAR PHARMACOLOGY should be sent to:

Dr. Raymond J. Dingledine, Editor
Molecular Pharmacology
Emory University School of Medicine
5001 Rollins Research Center
Clifton Road
Atlanta, Georgia 30322-3090, U.S.A.

MOLECULAR PHARMACOLOGY (MOL/ISSN 0026-895X) is an official publication of The American Society for Pharmacology and Experimental Therapeutics and is published monthly, two volumes a year, beginning in January and July, by Williams & Wilkins, 428 E. Preston St., Baltimore, MD 21202-3993. Second class postage paid at Baltimore, MD and at additional mailing offices. POSTMASTER: Send address changes to MOLECULAR PHARMACOLOGY, 428 E. Preston St., Baltimore, MD 21202-3993. **Subscription Rates:** U.S.: *Personal* \$105; *Institutional* \$230; *Single copy* \$19. **Outside the U.S., except Japan:** *Personal* \$135; *Institutional* \$260; *Single copy* \$23. Foreign prices exclude Japan. **See Information for Subscribers for detailed instructions.** The GST Tax Number for Canadian subscribers is 123394371. Country of origin USA. PRICES ARE SUBJECT TO CHANGE. Indexed by *Index Medicus*, *Current Contents (Life Sciences)*, *Excerpta Medica*, *Reference Update/Research Information Systems*, and *Current Awareness in Biological Sciences*. Copyright © 1994 by The American Society for Pharmacology and Experimental Therapeutics.

CONTENTS (cont'd)

823	Cloning, Expression, and Tissue Distribution of the Rat Homolog of the Bovine α_{1C} -Adrenergic Receptor Provide Evidence for Its Classification as the α_{1A} Subtype	Dianne M. Perez, Michael T. Piascik, Niveen Malik, Robert Gaivin, and Robert M. Graham
832	Coupling of the C5a Receptor to G_i in U-937 Cells and in Cells Transfected with C5a Receptor cDNA	Melissa Vanek, Lynn D. Hawkins, and Fabian Gusovsky
840	Bryostatin 1 Protects Protein Kinase C- δ from Down-regulation in Mouse Keratinocytes in Parallel with Its Inhibition of Phorbol Ester-Induced Differentiation	Zoltan Szallasi, Mitchell F. Denning, Colin B. Smith, Andrzej A. Dlugosz, Stuart H. Yuspa, George R. Pettit, and Peter M. Blumberg
851	Potentiation of γ -Aminobutyric Acid Type A Receptor-Mediated Chloride Currents by Novel Halogenated Compounds Correlates with Their Abilities to Induce General Anesthesia	S. John Mihic, Susan J. McQuilkin, Edmond I. Eger II, Pompiliu Ionescu, and R. Adron Harris
858	Site-Directed Mutagenesis of <i>N</i> -Linked Glycosylation Sites on the γ -Aminobutyric Acid Type A Receptor α_1 Subunit	Amy L. Buller, Gregg A. Hastings, Ewen F. Kirkness, and Claire M. Fraser
866	Interaction of an Estramustine Photoaffinity Analogue with Cytoskeletal Proteins in Prostate Carcinoma Cells	Lisa A. Speicher, Naomi Laing, Linda R. Barone, Joan D. Robbins, Kenneth B. Seamon, and Kenneth D. Tew
873	Ethanol-Responsive Genes in Neural Cells Include the 78-Kilodalton Glucose-Regulated Protein (GRP78) and 94-Kilodalton Glucose-Regulated Protein (GRP94) Molecular Chaperones	Michael F. Miles, Norbert Wilke, Mary Elliot, William Tanner, and Samir Shah
880	Transcriptional Regulation of Secretogranin II and Chromogranin B by Cyclic AMP in a Rat Pheochromocytoma Cell Line	Marilyn E. Thompson, Donna L. Valentine, Samuel J. Strada, John A. Wagner, and Jonathan G. Scammell
890	Programmed Cell Death (Apoptosis) of Mouse Fibroblasts Is Induced by the Topoisomerase II Inhibitor Etoposide	Kazuhiro Mizumoto, Ronald J. Rothman, and John L. Farber
896	The Daunorubicin-Binding Protein of <i>M</i> , 54,000 Is an Aldehyde Dehydrogenase and Is Down-regulated in Mouse Liver Tumors and in Tumor Cell Lines	Patrizia Banfi, Cinzia.Lanzi, F. Stefania Falvella, Manuela Gariboldi, Romolo A. Gambetta, and Tommaso A. Dragani
901	Doxorubicin-Induced DNA Degradation in Murine Thymocytes	G. Zaleskis, E. Berleth, S. Verstovsek, M. J. Ehrke, and E. Mihich
909	Transcriptional Up-regulation of γ -Glutamylcysteine Synthetase Gene Expression in Melphalan-Resistant Human Prostate Carcinoma Cells	R. Timothy Mulcahy, Seema Untawale, and Jerry J. Gipp
915	Analysis of the Four Alleles of the Murine Aryl Hydrocarbon Receptor	Alan Poland, David Palen, and Ed Glover
922	Functional Cytochrome P4503A Isoforms in Human Embryonic Tissues: Expression During Organogenesis	Hsueh-Ying L. Yang, Qwihee P. Lee, Allan E. Rettie, and Mont R. Juchau

Continued

CONTENTS (cont'd)

929	Selectivity of Agonists for Cloned α_1 -Adrenergic Receptor Subtypes	Kenneth P. Minneman, Tracey L. Theroux, Susanne Hollinger, Chide Han, and Timothy A. Esbenshade
937	Reciprocal Binding Properties of 5-Hydroxytryptamine Type 2C Receptor Agonists and Inverse Agonists	Ryan S. Westphal and Elaine Sanders-Bush
943	Biological Properties of the Benzodiazepine Amidine Derivative L-740,093, a Cholecystokinin-B/Gastrin Receptor Antagonist with High Affinity <i>In Vitro</i> and High Potency <i>In Vivo</i>	Smita Patel, Alison J. Smith, Kerry L. Chapman, Alan E. Fletcher, John A. Kemp, George R. Marshall, Richard J. Hargreaves, Wayne Ryecroft, Leslie L. Iversen, Susan D. Iversen, Raymond Baker, Graham A. Showell, Sylvie Bourrain, Joseph G. Neduvellil, Victor G. Matassa, and Stephen B. Freedman
949	Discrimination between Putative Bradykinin B ₂ Receptor Subtypes in Guinea Pig Ileum Smooth Muscle Membranes with a Selective, Iodinatable, Bradykinin Analogue	Claus Liebmann, Roger Bosse, and Emanuel Escher
957	Molecular Pharmacology of γ -Aminobutyric Acid Type A Receptor Agonists and Partial Agonists in Oocytes Injected with Different α , β , and γ Receptor Subunit Combinations	Bjarke Ebert, Keith A. Wafford, Paul J. Whiting, Povl Krosgaard-Larsen, and John A. Kemp
964	Amino- and Carboxyl-Terminal Domains Specify the Identity of the δ Subunit in Assembly of the Mouse Muscle Nicotinic Acetylcholine Receptor	Xiao-Mei Yu and Zach W. Hall
970	Block of the Inactivating Potassium Channel by Clofilium and Hydroxylamine Depends on the Sequence of the Pore Region	Andrea J. Yool
977	Correlation of Neuroactive Steroid Modulation of [³⁵ S] <i>t</i> -Butylbicyclopophosphorothionate and [³ H]Flunitrazepam Binding and γ -Aminobutyric Acid _A Receptor Function	Jon E. Hawkinson, Catherine L. Kimbrough, Delia Belelli, Jeremy J. Lambert, Robert H. Purdy, and Nancy C. Lan
986	Glutamate Uptake Is Inhibited by Arachidonic Acid and Oxygen Radicals via Two Distinct and Additive Mechanisms	Andrea Volterra, Davide Trotti, and Giorgio Racagni
993	Functional Heterogeneity of Nicotinic Receptors in the Avian Lateral Spiriform Nucleus Detected with Trimethaphan	William R. Weaver, Kathleen M. Wolf, and Vincent A. Chiappinelli
1002	Enhancement by 2'-Deoxycoformycin of the 5'-Phosphorylation and Anti-Human Immunodeficiency Virus Activity of 2',3'-Dideoxyadenosine and 2'- β -Fluoro-2',3'-dideoxyadenosine	Gurpreet S. Ahluwalia, David A. Cooney, Takuma Shirasaka, Hiroaki Mitsuya, John S. Driscoll, and David G. Johns
1009	New Aspects of the Kinetics of Inhibition by Lincomycin of Peptide Bond Formation	Sofia Kallia-Raftopoulos, Dimitrios L. Kalpaxis, and Charalambos Coutsogeorgopoulos