

Contents

Vol. 71, No. 1, 2006

Simultaneous English language translation of the journal is available from Pleiades Publishing, Inc.
Distributed worldwide by Springer. *Biochemistry* (Moscow) ISSN 0006-2979.

Engl./Russ.

Reviews

Structural–Functional Model of the Mitotic Chromosome

*V. Yu. Polyakov, O. V. Zatsepina, I. I. Kireev, A. N. Prusov, D. I. Fais, E. V. Sheval,
Yu. V. Koblyakova, S. A. Golyshev, and Yu. S. Chentsov*

1 6

Role of Biologically Active Sphingolipids in Tumor Growth

E. V. Dyatlovitskaya and A. G. Kandyba

10 17

Identification of Latent Periodicity in Amino Acid Sequences of Protein Families

V. P. Turutina, A. A. Laskin, N. A. Kudryashov, K. G. Skryabin, and E. V. Korotkov

18 26

Use of the Addressing Sequence of Yeast D-Lactate Dehydrogenase for Insertion of CYP11A1p into the Inner Membrane of Yeast Mitochondria

A. N. Minenko, V. N. Luzikov, and I. E. Kovaleva

32 42

Specific Features of Changes in Levels of Endogenous Respiration Substrates in *Saccharomyces cerevisiae* Cells at Low Temperature

D. A. Aliverdieva, D. V. Mamaev, L. S. Lagutina, and K. F. Sholtz

39 50

Amphenicol and Macrolide Derived Antibiotics Inhibit Paraoxonase Enzyme Activity in Human Serum and Human Hepatoma Cells (HepG2) *in vitro*

S. Sinan, F. Kockar, N. Gencer, H. Yildirim, and O. Arslan

46 59

Dimethyl and Monomethyl Oxyluciferins as Analogs of the Product of the Bioluminescence Reaction Catalyzed by Firefly Luciferase

O. V. Leont'eva, T. N. Vlasova, and N. N. Ugarova

51 65

Single Step Immobilized Metal Ion Affinity Precipitation/Chromatography Based Procedures for Purification of Concanavalin A and *Cajanus cajan* Mannose-Specific Lectin

A. Naeem, R. H. Khan, and M. Saleemuddin

56 70

Hydrogen Peroxide Produced Inside Mitochondria Takes Part in Cell-to-Cell Transmission of Apoptotic Signal

O. Yu. Pletjushkina, E. K. Fetisova, K. G. Lyamzaev, O. Yu. Ivanova, L. V. Domnina, M. Yu. Vyssokikh, A. V. Pustovidko, A. V. Alexeevski, D. A. Alexeevski, J. M. Vasiliev, M. P. Murphy, B. V. Chernyak, and V. P. Skulachev

60 75

Periplasmic Superoxide Dismutase from *Desulfovibrio desulfuricans* 1388 Is an Iron Protein

M. N. Davydova, O. V. Gorshkov, and N. B. Tarasova

68 85

Macrophage Migration Inhibitory Factor: Isolation from Bovine Brain

O. A. Cherepkova, E. M. Lyutova, and B. Ya. Gurvits

73 90

Hydrolytic Approach for Production of Deoxyribonucleoside- and Ribonucleoside-5'-Monophosphates and Enzymatic Synthesis of Their Polyphosphates

D. V. Bochkov, V. V. Khomov, and T. G. Tolstikova

79 97

Interaction of Native Bowman-Birk Soybean Protease Inhibitor and Its Hydrophobized Derivative with Multilamellar Vesicles of Soybean Phospholipids

A. S. Balkina, A. A. Selischeva, G. M. Sorokoumova, and N. I. Larionova

84 103

Analysis of Benzo[a]pyrene Deactivation Mechanisms in Rats

V. S. Sibirtsev

90 111

Lipid-Mediated Inactivation of Colicin E1 Channels by Calcium Ions

A. A. Sobko, E. A. Kotova, S. D. Zakharov, W. A. Cramer, and Y. N. Antonenko

99 121

Instructions to Authors 2006

104 132