

Review

The malonyl-CoA–long-chain acyl-CoA axis in the maintenance of mammalian cell function
by V. A. Zammit

505–515

Research Papers**Proteins**

Oligomerization properties of fragile-X mental-retardation protein (FMRP) and the fragile-X-related proteins FXR1P and FXR2P

F. Tamanini, L. Van Unen, C. Bakker, N. Sacchi, H. Galjaard, B.A. Oostra and A.T. Hoogeveen

517–523

A method for S- and O-palmitoylation of peptides: synthesis of pulmonary surfactant protein-C models

E. Yousefi-Salakdeh, J. Johansson and R. Strömberg

557–562

Purification of multiple functional leaf-actin isoforms from *Phaseolus vulgaris* L.

C. Díaz-Camino and M.A. Villanueva

597–602

Conserved charged residues in the leucine-rich repeat domain of the Ran GTPase activating protein are required for Ran binding and GTPase activation

J. Haberland and V. Gerke

653–662

The role of amino acid α^{38} in the control of oxygen binding to human adult and embryonic haemoglobin Portland

T. Zheng, T. Brittain, N.J. Watmough and R.E. Weber

681–685

A novel chaperone-activity-reducing mechanism of the 90-kDa molecular chaperone HPS90

H. Itoh, M. Ogura, A. Komatsuda, H. Wakui, A.B. Miura and Y. Tashima

697–703

Enzymes

The role of tyrosine-9 and the C-terminal helix in the catalytic mechanism of Alpha-class glutathione S-transferases

C.S. Allardyce, P.D. McDonah, L.-Y. Lian, C.R. Wolf and G.C.K. Roberts

525–531

Site-directed mutagenesis establishes cysteine-110 as essential for enzyme activity in human γ -glutamyl hydrolase

K.J. Chave, J. Galivan and T.J. Ryan

551–555

An extremely thermostable aldolase from *Sulfolobus solfataricus* with specificity for non-phosphorylated substrates

C.L. Buchanan, H. Connaris, M.J. Danson, C.D. Reeve and D.W. Hough

563–570

The third chitinase gene (*chiC*) of *Serratia marcescens* 2170 and the relationship of its product to other bacterial chitinases

K. Suzuki, M. Taiyoji, N. Sugawara, N. Nikaidou, B. Henrissat and T. Watanabe

587–596

NADPH as a co-substrate for studies of the chlorinating activity of myeloperoxidase

F. Auchère and C. Capeillère-Blandin

603–613

Structural characterization of human and bovine lung surfactant protein D

R. Leth-Larsen, U. Holmskov and P. Højrup

645–652

Properties of the 40 kDa antigen of *Mycobacterium tuberculosis*, a functional L-alanine dehydrogenase

B. Hutter and M. Singh

669–672

Carbohydrates and lipids

Glycosylphosphatidylinositol-anchor intermediates associate with Triton-insoluble membranes in subcellular compartments that include the endoplasmic reticulum

D. Seveler, S. Pickett, K.J. Mann, K. Sambamurti, M.E. Medof and T.L. Rosenberry

627–635

Gene structure and regulation

- Delineation of the insulin-responsive sequence in the rat cytosolic aspartate aminotransferase gene: binding sites for hepatocyte nuclear factor-3 and nuclear factor I F. Beurton, U. Bandyopadhyay, B. Dieumegard, R. Barouki and M. Aggerbeck **687–695**

Regulation of metabolism

- GLUT4 trafficking in insulin-stimulated rat adipose cells: evidence that heterotrimeric GTP-binding proteins regulate the fusion of docked GLUT4-containing vesicles C.M. Ferrara and S.W. Cushman **571–577**
- Regulation of intestinal Na⁺-dependent phosphate co-transporters by a low-phosphate diet and 1,25-dihydroxyvitamin D₃ K. Katai, K.-i. Miyamoto, S. Kishida, H. Segawa, T. Nii, H. Tanaka, Y. Tani, H. Arai, S. Tatsumi, K. Morita, Y. Taketani and E. Takeda **705–712**

Receptors and signal transduction

- Novel bimodal effects of the G-protein tissue transglutaminase on adrenoreceptor signalling J. Zhang, J. Tucholski, M. Lesort, R.S. Jope and G.V.W. Johnson **541–549**
- Osmotic cell swelling-induced ATP release mediates the activation of extracellular signal-regulated protein kinase (Erk)-1/2 but not the activation of osmo-sensitive anion channels T. van der Wijk, H.R. de Jonge and B.C. Tilly **579–586**
- Mitogen-activated protein kinase mediates erythropoietin-induced phosphorylation of the TAL1/SCL transcription factor in murine proerythroblasts T. Tang, K.S.S. Prasad, M.J. Koury and S.J. Brandt **615–620**
- Identification of protein C phosphorylation sites in the angiotensin II (AT_{1A}) receptor H. Qian, L. Pipolo and W.G. Thomas **637–644**

Cell biology and development

- Sulphation of lithocholic acid in the colon-carcinoma cell line CaCo-2 B. Halvorsen, B.F. Kase, K. Prydz, S. Garagozlian, M.S. Andresen and S.O. Kolset **533–539**
- Opposite roles of trehalase activity in heat-shock recovery and heat-shock survival in *Saccharomyces cerevisiae* S. Wera, E. De Schrijver, I. Geyskens, S. Nwaka and J.M. Thevelein **621–626**
- Expression of proteoglycan core proteins in human bone marrow stroma K.P. Schofield, J.T. Gallagher and G. David **663–668**
- Evidence for an interaction of the metalloprotease–disintegrin tumour necrosis factor α convertase (TACE) with mitotic arrest deficient 2 (MAD2), and of the metalloprotease–disintegrin MDC9 with a novel MAD2-related protein, MAD2 β K.K. Nelson, J. Schlöndorff and C.P. Blobel **673–680**