

Research Communications

Glycogen synthase kinase-3 is rapidly inactivated in response to insulin and phosphorylates eukaryotic initiation factor eIF-2B	G.I. Welsh and C.G. Proud	625–629
Distribution of the monochlorobimane–glutathione conjugate between nucleus and cytosol in isolated hepatocytes	K. Briviba, G. Fraser, H. Sies and B. Ketterer	631–633

Research Papers

Proteins

Subcloning and characterization of the binding domain of fragment B of diphtheria toxin	Q.Y. Esbensen, P.Ø. Falnes, S. Olsnes and I.H. Madshus	663–666
Enhancement of pertussis-toxin-sensitive Na ⁺ -dependent uridine transporter activity in HL-60 granulocytes by <i>N</i> -formylmethionyl-leucyl-phenylalanine	L.-B. Goh, J.A. Sokoloski, A.C. Sartorelli and C.-W. Lee	693–697
Heterogeneous phosphorylation of erythrocyte spectrin β chain in intact cells	S. Pedroni, M.C. Lecomte, H. Gautero and D. Dherymy	841–846
Characterization of the binding defect in insulin-like growth factor binding protein-3 from pregnancy serum	R.C. Baxter, A.-M. Suikkari and J.L. Martin	847–852
Genetic polymorphism of histone H1.z in duck erythrocytes	J. Patyga, E. Górnicka-Michalska and A. Kowalski	859–863
Characterization of the structure and redox behaviour of cytochrome <i>c</i> ₃ from <i>Desulfovibrio baculatus</i> by ¹ H-nuclear-magnetic-resonance spectroscopy	I.B. Coutinho, D.L. Turner, J. LeGall and A.V. Xavier	899–908
Structural studies on <i>Desulfovibrio gigas</i> cytochrome <i>c</i> ₃ by two-dimensional ¹ H-nuclear-magnetic-resonance spectroscopy	M.A. Piçarra-Pereira, D.L. Turner, J. LeGall and A.V. Xavier	909–915
Demonstration by electrospray mass spectrometry that the peptidyl dipeptidase activity of cathepsin B is capable of rat cathepsin B C-terminal processing	A.D. Rowan, R.Feng, Y. Konishi and J.S. Mort	923–927

Enzymes

Comparison of the active sites of the purified carnitine acyltransferases from peroxisomes and mitochondria by using a reaction-intermediate analogue	N. Nic A' Bháird, G. Kumaravel, R.D. Gandour, M.J. Krueger and R.R. Ramsay	645–651
A kinetic-isotope-effect study of catalysis by <i>Vibrio cholerae</i> neuraminidase	X. Guo and M.L. Sinnott	653–656
Overexpression of <i>N</i> -acetylgalactosamine-4-sulphatase induces a multiple sulphatase deficiency in mucopolysaccharidosis-type-VI fibroblasts	D.S. Anson, V. Muller, J. Bielicki, G.S. Harper and J.J. Hopwood	657–662
Endopeptidase 3.4.24.11 converts <i>N</i> -1-(<i>R,S</i>)carboxy-3-phenylpropyl-Ala-Ala-Phe- <i>p</i> -carboxyanilide into a potent inhibitor of angiotensin-converting enzyme	C.H. Williams, T. Yamamoto, D.M. Walsh and D. Allsop	681–684
Comparative biosynthesis, covalent post-translational modifications and efficiency of prosegment cleavage of the prohormone convertases PC1 and PC2: glycosylation, sulphation and identification of the intracellular site of prosegment cleavage of PC1 and PC2	S. Benjannet, N. Rondeau, L. Paquet, A. Boudreault, C. Lazure, M. Chrétien and N.G. Seidah	735–743
Time course of the uridylation and adenylation states in the glutamine synthetase bicyclic cascade	R. Varón-Castellanos, B.H. Havsteen, M. García-Moreno, E. Valero-Ruiz, M. Molina-Alarcón and F. García-Cánovas	813–819
Is pyridoxal 5'-phosphate an affinity label for phosphate-binding sites in proteins?: the case of bovine glutamate dehydrogenase	Z. Valinger, P.C. Engel and D.E. Metzler	835–839
Heparin-affinity patterns and composition of extracellular superoxide dismutase in human plasma and tissues	J. Sandström, K. Karlsson, T. Edlund and S.L. Marklund	853–857

Carbohydrates and lipids

- Acyloin production from aldehydes in the perfused rat heart: the potential role of pyruvate dehydrogenase J.A. Montgomery, M. Jetté, S. Huot and C. Des Rosiers 727–733
- Greater selective uptake by Hep G2 cells of high-density lipoprotein cholesteryl ester hydroperoxides than of unoxidized cholesteryl esters W. Sattler and R. Stocker 771–778
- Lecithin:cholesterol acyltransferase: role of N-linked glycosylation in enzyme function K.O. J.S. Hill, X. Wang, R. McLeod and P.H. Pritchard 879–884
- Use of pyrenemethyl laurate for fluorescence-based determination of lipase activity in intact living lymphoblastoid cells and for the diagnosis of acid lipase deficiency A. Nègre-Salvayre, A. Dagan, S. Gatt and R. Salvayre 885–891

Gene structure and expression

- High-level expression and *in vitro* mutagenesis of a fibrillogenic 109-amino-acid C-terminal fragment of Alzheimer's-disease amyloid precursor protein J.E. Gardella, G.A. Gorgone, L. Candella, J. Ghiso, E.M. Castaño, B. Frangione and P.D. Gorevic 667–674
- Transcriptional modulation of cartilage-specific collagen gene expression by interferon γ and tumour necrosis factor α in cultured human chondrocytes A.M. Reginato, C. Sanz-Rodriguez, A. Diaz, R.M. Dharmavaram and S.A. Jimenez 761–769
- A distal activation domain is critical in the regulation of the rat androgen receptor gene promoter C.S. Song, S. Her, M. Slomczynska, S.J. Choi, M.H. Jung, A.K. Roy and B. Chatterjee 779–784
- Branched-chain-amino-acid biosynthesis in plants: molecular cloning and characterization of the gene encoding acetohydroxy acid isomeroeductase (ketol-acid reductoisomerase) from *Arabidopsis thaliana* (thale cress) R. Dumas, G. Curien, R.T. DeRose and R. Douce 821–828
- Modulation of transferrin receptor mRNA by transferrin–gallium in human myeloid HL60 and lymphoid CCRF-CEM leukaemic cells R. Ul-Haq and C.R. Chitambar 873–877

Regulation of metabolism

- Lipogenesis from lactate in rat neurons and astrocytes in primary culture A. Tabernero, J.P. Bolaños and J.M. Medina 635–638
- Oxidative damage to mitochondria is mediated by the Ca^{2+} -dependent inner-membrane permeability transition N. Takeyama, N. Matsuo and T. Tanaka 719–725
- Application of dual-digitonin-pulse perfusion to the study of hepatic mRNA zonation L.A. Witters, A. Christensen, K. Fassih, A.N. King, J. Widmer and B. Quistorff 809–812
- The role of high-density lipoprotein and lipid-soluble antioxidant vitamins in inhibiting low-density lipoprotein oxidation M.I. Mackness, C. Abbott, S. Arrol and P.N. Durrington 829–834
- Rapid and delayed effects of epidermal growth factor on gluconeogenesis C. Soler and M. Soley 865–872
- Hormonal and substrate regulation of 3-thia fatty acid metabolism in Morris 7800 C1 hepatoma cells E. Hvattum, H.J. Grav and J. Bremer 917–921

Membranes and bioenergetics

- Modulation of the proton-translocation stoichiometry of H^+ -ATP synthases in two phototrophic prokaryotes by external pH B.E. Krenn, H.S. Van Walraven, M.J.C. Scholts and R. Kraayenhof 705–709
- Spectroscopic characterization of cytochrome c peroxidase from *Paracoccus denitrificans* R. Gilmour, C.F. Goodhew, G.W. Pettigrew, S. Prazeres, I. Moura and J.J.G. Moura 745–752
- Analysis of the structural requirements of sugar binding to the liver, brain and insulin-responsive glucose transporters expressed in oocytes C.A. Colville, M.J. Seatter and G.W. Gould 753–760

Receptors and signal transduction

- Biochemical characterization of the molecular interaction between recombinant basic fibroblast growth factor and a recombinant soluble fibroblast growth factor receptor P. Caccia, O. Cletini, A. Isacchi, L. Bergonzoni and G. Orsini 639–644
- Vinculin is a major platelet protein that undergoes Ca^{2+} -dependent tyrosine phosphorylation J.G. Vostal and N.R. Shulman 675–680
- Distinct β -subunits are present in hybrid insulin-like-growth-factor-1 receptors in the central nervous system A.M. Moss and J.N. Livingston 685–692

Regulation of sphingosine-activated protein kinases: selectivity of action by sphingoid bases and inhibition by non-esterified fatty acids	M.Y. Pushkareva, A. Bielawska, D. Menaldiv, D. Liotta and Y.A. Hannun	699–703
v-Src activates a unique phospholipase D activity that can be distinguished from the phospholipase D activity activated by phorbol esters	J. Song and D.A. Foster	711–717
Retinoic acid suppresses the response to platelet-derived growth factor in human hepatic Ito-cell-like myofibroblasts: a post-receptor mechanism independent of <i>raf/fos/jun/egr</i> activation	B.H. Davis, D. Coll and D.W.A. Beno	785–792
Direct labelling of hormone-sensitive phosphoinositides by a plasma-membrane-associated PtdIns synthase in turkey erythrocytes	C. Vaziri, C.P. Downes and S.C. Macfarlane	793–799
Regulation of annexin I-dependent aggregation of phospholipid vesicles by protein kinase C	S.A. Johnstone, I. Hubaishy and D.M. Waisman	801–807
Interferon- γ -stimulated and GTP-binding-proteins-mediated phospholipase A ₂ activation in human neuroblasts	M. Ponzoni and P. Cornaglia-Ferraris	893–898
Cell biology and development		
Inhibition of iron-catalysed hydroxyl radical formation by inositol polyphosphates: a possible physiological function for <i>myo</i> -inositol hexakisphosphate	P.T. Hawkins, D.R. Poyner, T.R. Jackson, A.J. Letcher, D.A. Lander and R.F. Irvine	929–934
Corrections		
Predominant expression of type-VI adenylate cyclase in C6-2B rat glioma cells may account for inhibition of cyclic AMP accumulation by calcium by M.A. Debernardi, R. Munshi, M. Yoshimura, D.M.F. Cooper and G. Brooker (volume 293, pages 325–328, 1993)		935