

**Research Communications**

Nuclear diacylglycerol is increased during cell proliferation <i>in vivo</i>	H. Banfić, M. Žižak, N. Divecha and R.F. Irvine	<b>633–636</b>
Phenobarbital induction of AP-1 binding activity mediates activation of glutathione S-transferase and quinone reductase gene expression	R. Pinkus, S. Bergelson and V. Daniel	<b>637–640</b>

**Research Papers**

**Proteins**

Role of the glycosaminoglycan component of thrombomodulin in its acceleration of the inactivation of single-chain urokinase-type plasminogen activator by thrombin	G.A.W. de Munk, J.F. Parkinson, E. Groeneveld, N.U. Bang and D.C. Rijken	<b>655–659</b>
Iron release and uptake by plant ferritin: effects of pH, reduction and chelation	J.-P. Laulhere and J.-F. Briat	<b>693–699</b>
Expression, purification and characterization of B72.3 Fv fragments	D.J. King, O.D. Byron, A. Mountain, N. Weir, A. Harvey, A.D.G. Lawson, K.A. Proudfoot, D. Baldock, S.E. Harding, G.T. Yarranton and R.J. Owens	<b>723–729</b>
Effects of different enzymic treatments on the release of titin fragments from rabbit skeletal myofibrils. Purification of an 800 kDa titin polypeptide	C. Astier, J.-P. Labbé, C. Roustan and Y. Benyamin	<b>731–734</b>
Formation of <i>N</i> -hydroxy- <i>N</i> -arylamides from nitroso aromatic compounds by the mammalian pyruvate dehydrogenase complex	T. Yoshioka and T. Uematsu	<b>783–790</b>
<i>Escherichia coli</i> and herpes-simplex-virus ribonucleotide reductase R2 subunit. Compared reactivities of the redox centres	M. Atta, N. Lamarche, J.-P. Battioni, B. Massie, Y. Langelier, D. Mansuy and M. Fontecave	<b>807–810</b>
The G9a gene in the human major histocompatibility complex encodes a novel protein containing ankyrin-like repeats	C.M. Milner and R.D. Campbell	<b>811–818</b>
Circular dichroism analysis of ligand-induced conformational changes in protein kinase C. Mechanism of translocation of the enzyme from the cytosol to the membranes and its implications	L. Boscá and F. Morán	<b>827–832</b>

**Enzymes**

Evidence for common structural changes in thrombin induced by active-site or exosite binding	M.A.A. Parry, S.R. Stone, J. Hofsteenge and M.P. Jackman	<b>665–670</b>
The structural basis of the inhibition of human $\alpha$ -mannosidases by azafuranose analogues of mannose	B. Winchester, S. Al Daher, N.C. Carpenter, I. Cenci di Bellow, S.S. Choi, A.J. Fairbanks and G.W.J. Fleet	<b>743–749</b>
The hyaluronate synthase from a eukaryotic cell line	L. Klewes, E.A. Turley and P. Prehm	<b>791–795</b>
Separation of native and truncated forms of poliovirus protease 3C produced in <i>Escherichia coli</i>	L. Polgár, F. Erdélyi, E. Hajnal, M. Löw, L. Gráf and B.D. Korant	<b>797–800</b>
Expression and partial characterization of a cathepsin B-like enzyme (Sm31) and a proposed 'haemoglobinase' (Sm32) from <i>Schistosoma mansoni</i>	B. Götz and M.-Q. Klinkert	<b>801–806</b>
Extracellular-matrix degradation at acid pH. Avian osteoclast acid collagenase isolation and characterization	H.C. Blair, S.L. Teitelbaum, L.E. Grosso, D.L. Lacey, H.-L. Tan, D.W. McCourt and J.J. Jeffrey	<b>873–884</b>
The hepatic glucose-6-phosphatase system in Ehrlich-ascites-tumour-bearing mice	R.W. Lucius, I.D. Waddell, A. Burchell and R.C. Nordlie	<b>907–911</b>
Identification of the thyrotropin-releasing-hormone-degrading ectoenzyme as a metalloproteinase	G. Czekay and K. Bauer	<b>921–926</b>

**Carbohydrates and lipids**

N.m.r. lipid profiles of cells, tissues and body fluids. Neutral, non-acidic and acidic phospholipid analysis of Bond Elut chromatographic fractions	G.T.Y. Choi, M. Casu and W.A. Gibbons	<b>717–721</b>
--	---------------------------------------	----------------

The long-chain sphingoid base of sphingolipids is acylated at the cytosolic surface of the endoplasmic reticulum in rat liver	M. Hirschberg, J. Rodger and A.H. Futerman	751–757
Clearance from plasma of triacylglycerol and cholesteryl ester after intravenous injection of chylomicron-like lipid emulsions in rats and man	T.G. Redgrave, H.L. Ly, E.C.R. Quintao, C.F. Ramberg and R.C. Boston	843–847
<b>Gene structure and expression</b>		
Transcriptional regulation of hydroxyindole O-methyltransferase in the chicken pineal gland: day/night changes and long-term effects of light and darkness	M. Bernard, J. Guerlotte, M. Cogne, P. Greve, J.-P. Collin and P. Voisin	661–664
Characterization of three alleles causing aspartylglycosaminuria: two from a British family and one from an American patient	H. Park, M.B. Vettese, A.H. Fensom, K.J. Fisher and N.N. Aronson, Jr.	735–741
The role of inorganic metals and metalloporphyrins in the induction of haem oxygenase and heat-shock protein 70 in human hepatoma cells	K. Mitani, H. Fujita, Y. Fukuda, A. Kappas and S. Sassa	819–825
$\beta$ -Mannanase of <i>Streptomyces lividans</i> 66: cloning and DNA sequence of the <i>manA</i> gene and characterization of the enzyme	N. Arcand, D. Kluepfel, F.W. Paradis, R. Morosoli and F. Shareck	857–863
<b>Regulation of metabolism</b>		
Mechanisms of elevation of adenosine levels in anoxic hepatocytes	F. Bontemps, M.F. Vincent and G. Van Den Berghe	671–677
Phosphorylation of adenosine in anoxic hepatocytes by an exchange reaction catalysed by adenosine kinase	F. Bontemps, M. Mimouni and G. Van Den Berghe	679–684
Differential feedback regulation of cholesterol 7 $\alpha$ -hydroxylase mRNA and transcriptional activity by rat bile acids in primary monolayer cultures of rat hepatocytes	J. Twisk, E.M. Lehmann and H.M.G. Princen	685–691
Effect of insulin on the rates of synthesis and degradation of GLUT1 and GLUT4 glucose transporters in 3T3-L1 adipocytes	R.J. Sargeant and M.R. Pâquet	913–919
<b>Membranes and bioenergetics</b>		
Kinetic analysis of the liver-type (GLUT2) and brain-type (GLUT3) glucose transporters in <i>Xenopus</i> oocytes: substrate specificities and effects of transport inhibitors	C.A. Colville, M.J. Seatter, T.J. Jess, G.W. Gould and H.M. Thomas	701–706
Differential targeting of glucose transporter isoforms heterologously expressed in <i>Xenopus</i> oocytes	H.M. Thomas, J. Takeda and G.W. Gould	707–715
Photometric characteristics of haem proteins in erythropoietin-producing hepatoma cells (HepG2)	A. Görlach, G. Holtermann, W. Jelkmann, J.T. Hancock, S.A. Jones, O.T.G. Jones and H. Acker	771–776
Proton-linked L-rhamnose transport, and its comparison with L-fucose transport in Enterobacteriaceae	J.A.R. Muiry, T.C. Gunn, T.P. McDonald, S.A. Bradley, C.G. Tate and P.J.F. Henderson	833–842
<b>Receptors and signal transduction</b>		
Evidence for involvement of phospholipase C- $\gamma$ 2 in signal transduction of platelet-derived growth factor in vascular smooth-muscle cells	Y. Homma, H. Sakamoto, M. Tsunoda, M. Aoki, T. Takenawa and T. Ooyama	649–653
Identification of G $\alpha_{11}$ as the phospholipase C-activating G-protein of turkey erythrocytes	D.H. Maurice, G.L. Waldo, A.J. Morris, R.A. Nicholas and T.K. Harden	765–770
Activation of phospholipase C and protein kinase C has little involvement in ADP-induced primary aggregation of human platelets: effects of diacylglycerols, the diacylglycerol kinase inhibitor R59022, staurosporine and okadaic acid	M.A. Packham, A.-A. Livne, D.H. Ruben and M.L. Rand	849–856
Quantification of inositol phospholipid breakdown in isolated rat hepatocytes	C.J. Allan and J.H. Exton	865–872
Receptor-recognized $\alpha_2$ -macroglobulin-methylamine elevates intracellular calcium, inositol phosphates and cyclic AMP in murine peritoneal macrophages	U.K. Misra, C.T. Chu, D.S. Rubenstein, G. Gawdi and S.V. Pizzo	885–891
Receptor regulation of phosphoinositide 3-hydroxykinase in the NG115-401L-C3 neuronal cell line: stimulation by insulin-like growth factor-I	D.R. Poyner, M.R. Hanley, T.R. Jackson and P.T. Hawkins	901–905

**Cell biology and development**

- Age-related changes in expression of the neural cell adhesion molecule in skeletal muscle: a comparative study of newborn, adult and aged rats  
A.-M. Andersson, M. Olsen, D. Zhernosekov, H. Gaardsvoll, L. Krog, D. Linnemann and E. Bock **641–648**
- Glutathione-conjugate transport by human colon adenocarcinoma cells (Caco-2 cells)  
R.P.J. Oude Elferink, C.T.M. Bakker and P.L.M. Jansen **759–764**
- The  $17\beta$ -oestradiol dehydrogenase of pig endometrial cells is localized in specialized vesicles  
J. Adamski, B. Husen, F. Marks and P.W. Jungblut **777–782**
- Differences in decorin expression by papillary and reticular fibroblasts *in vivo* and *in vitro*  
E. Schönherr, L.A. Beavan, H. Hausser, H. Kresse and L.A. Culp **893–899**

**Corrections**

- Site-directed mutagenesis and substrate-induced inactivation of  $\beta$ -lactamase I  
by S.J. Thornewell and S.G. Waley (volume 288, page 1045, 1992) **927**
- Expression and lipoylation in *Escherichia coli* of the inner lipoyl domain of the E2 component of the human pyruvate dehydrogenase complex  
by J. Quinn, A.G. Diamond, A.K. Masters, D.E. Brookfield, N.G. Wallis and S.J. Yeaman (volume 289, page 84, 1993) **927**