

CONTENTS

Volume 249, No. 3, 1988

REVIEW ARTICLE

Interactive properties of calmodulin

J. A. COX 621-629

FULL AND RAPID PAPERS

Proteins

The complete amino acid sequence of human skeletal-muscle fructose-bisphosphate aldolase

P. S. FREEMONT, B. DUNBAR & L. A. FOTHERGILL-GILMORE 779-788

The predicted secondary structures of class I fructose-bisphosphate aldolases

L. SAWYER, L. A. FOTHERGILL-GILMORE & P. S. FREEMONT 789-793

γ -Glutamylamine derivatives in isolated rat hepatocyte proteins

M. PIACENTINI & S. BENINATI 813-817

The reaction of nitrite with the haemocyanin of *Astacus leptodactylus*

J.-P. TAHON, D. VAN HOOF, C. VINCKIER, R. WITTESS, M. DE LEY & R. LONTIE 891-896

The calcium, copper and zinc content of some annelid extracellular haemoglobins

P. R. STANDLEY, M. G. MAINWARING, T. GOTOH & S. N. VINOGRADOV 915-916

Specific interaction of ivermectin with retinol-binding protein from filarial parasites

B. P. SANI & A. VAID 929-932

Enzymes

Protein fluorescence changes associated with ATP and adenosine 5'-[γ -thio]triphosphate binding to skeletal muscle myosin subfragment 1 and actomyosin subfragment 1

N. C. MILLAR & M. A. GEEVES 735-743

The vanadium nitrogenase of *Azotobacter chroococcum*. Reduction of acetylene and ethylene to ethane

M. J. DILWORTH, R. R. EADY & M. E. ELDRIDGE 745-751

Purification and partial characterization of 4-aminobutyrate:2-oxoglutarate aminotransferase from sheep brain and locust ganglia

D. JEFFERY, D. M. RUTHERFORD, P. D. J. WEITZMAN & G. G. LUNT 795-799

Adenylate cyclase activity in a higher plant, alfalfa (*Medicago sativa*)

V. C. CARRICARTE, G. M. BIANCHINI, J. P. MUSCHIETTI, M. T. TÉLLEZ-IÑÓN, A. PERTICARI, H. N. TORRES & M. M. FLAWIÁ 807-811

Activation and inhibition of microsomal glutathione transferase from mouse liver

C. ANDERSSON, M. SÖDERSTRÖM & B. MANNERVIK 819-823

Partial purification of goat kidney β -mannosidase

J. I. FREI, K. T. CAVANAGH, R. A. FISHER, R. P. HAUSINGER, M. DUPUIS, E. J. S. RATHKE & M. Z. JONES 871-875

Phosphatidylinositol 4,5-bisphosphate phosphodiesterase in higher plants

W. C. MCMURRAY & R. F. IRVINE 877-881

Identical catalytic-centre activity for mouse kidney and rat liver ornithine decarboxylases as determined with antizyme and affinity labelling

M. MARUMO, S. MATSUFUJI, Y. MURAKAMI & S. HAYASHI 907-910

Effects of pH, detergent and salt on aggregation of Chinese-hamster-ovary-cell lysosomal enzymes

M. J. BUCKMASTER, A. L. FERRIS & B. STORRIE 921-923

Lipids

Characterization of lipases from the lipid bodies and microsomal membranes of erucic acid-free oilseed-rape (*Brassica napus*) cotyledons

M. J. HILLS & D. J. MURPHY 687-693

Gene structure and expression

Primary structure of rat liver alkaline phosphatase deduced from its cDNA

Y. MISUMI, K. TASHIRO, M. HATTORI, Y. SAKAKI & Y. IKEHARA 661-668

Synthesis and degradation of macromolecules

Serum concentrations of the N-terminal propeptide of type III procollagen and two type IV collagen fragments and gene expression of the respective collagen types in liver in rats with dimethylnitrosamine-induced hepatic fibrosis

E.-R. SAVOLAINEN, D. BROCKS, L. ALA-KOKKO & K. I. KIVIRIKKO 753-757

CONTENTS (continued)

Regulation of lipoprotein lipase mRNA content in 3T3-L1 cells by tumour necrosis factor	P. CORNELIUS, S. ENERBACK, G. BJURSELL, T. OLIVECRONA & P. H. PEKALA	765-769
Induction of dihydroliipoamide dehydrogenase in 3T3-L1 cells during differentiation	D. J. CAROTHERS, G. PONS & M. S. PATEL	897-902
Intermediary metabolism and metabolic control		
Regulation of immune-aggregate-stimulated hepatic glycogenolysis and vasoconstriction by vicinal dithiols	M. E. STEINHELPER & M. S. OLSON	631-637
Use of a selectively permeabilized isolated rat hepatocyte preparation to study changes in the properties of overt carnitine palmitoyl-transferase activity <i>in situ</i>	M. R. BOON & V. A. ZAMMIT	645-652
Comparison of the effects of [leucine]enkephalin and angiotensin on hepatic carbohydrate and cyclic nucleotide metabolism	S. K. HOTHI, R. P. LEACH & M. A. TITHERADGE	669-676
Prostaglandin F _{2α} and the thromboxane A ₂ analogue ONO-11113 stimulate Ca ²⁺ fluxes and other physiological responses in rat liver. Further evidence that prostanoids may be involved in the action of arachidonic acid and platelet-activating factor	J. G. ALTIN & F. L. BYGRAVE	677-685
Absolute rates of adenosine formation during ischaemia in rat and pigeon hearts	P. MEGHJI, K. M. MIDDLETON & A. C. NEWBY	695-703
Glutamine metabolism in isolated incubated adipocytes of the rat	J. M. KOWALCHUK, R. CURI & E. A. NEWSHOLME	705-708
Phosphorylation of C-protein, troponin I and phospholamban in isolated rabbit hearts	J. L. GARVEY, E. G. KRANIAS & R. J. SOLARO	709-714
Fatty acid specificity for the synthesis of triacylglycerol and phosphatidylcholine and for the secretion of very-low-density lipoproteins and lysophosphatidylcholine by cultures of rat hepatocytes	A. GRAHAM, V. A. ZAMMIT & D. N. BRINDLEY	727-733
An ' <i>in situ</i> ' perfusion system suitable for investigating mammary-tissue metabolism in the lactating rat. Hormonal regulation of acetyl-CoA carboxylase	R. A. CLEGG & D. T. CALVERT	771-777
Fatty acid metabolism in hepatocytes isolated from rats adapted to high-fat diets containing long- or medium-chain triacylglycerols	J.-P. PÉGORIER, P.-H. DUÉE, C. HERBIN, P.-Y. LAULAN, C. BLADÉ, J. PERET & J. GIRARD	801-806
Effects of a phorbol ester and clomiphene on protein phosphorylation and insulin secretion in rat pancreatic islets	S. J. HUGHES & S. J. H. ASHCROFT	825-830
The purification and properties of <i>myo</i> -inositol monophosphatase from bovine brain	N. S. GEE, C. I. RAGAN, K. J. WATLING, S. ASPLEY, R. G. JACKSON, G. G. REID, D. GANI & J. K. SHUTE	883-889
Renal hypertrophy in experimental diabetes. The activity of the ' <i>de novo</i> ' and salvage pathways of protein synthesis	S. KUNJARA, S. J. BEARDSLEY & A. L. GREENBAUM	911-914
An investigation of glucose uptake in relation to steroidogenesis in rat testis and tumour Leydig cells	P. AMROLIA, M. H. F. SULLIVAN, D. GARSIDE, S. A. BALDWIN & B. A. COOKE	925-928
Bioenergetics and transport		
Phorbol esters imitate in rat fat-cells the full effect of insulin on glucose-carrier translocation, but not on 3- <i>O</i> -methylglucose-transport activity	C. MÜHLBACHER, E. KARNIELI, P. SCHAFF, B. OBERMAIER, J. MUSHACK, E. RATTENHUBER & H. U. HÄRING	865-870
Acute effects of a β -adrenoceptor agonist (BRL 26830A) on rat brown-adipose-tissue mitochondria. Increased GDP binding and GDP-sensitive proton conductance without changes in the concentration of uncoupling protein	R. E. MILNER, S. WILSON, J. R. S. ARCH & P. TRAYHURN	759-763
Membranes and receptors		
Stimulation of high-affinity GTPase by trypsin and trypsin-like proteinases in membranes of human platelets	K. H. JAKOBS & K. AKTORIES	639-643
Antibodies which recognize the C-terminus of the inhibitory guanine-nucleotide-binding protein (G _i) demonstrate that opioid peptides and foetal-calf serum stimulate the high-affinity GTPase activity of two separate pertussis-toxin substrates	F. R. MCKENZIE, E. C. H. KELLY, C. G. UNSON, A. M. SPIEGEL & G. MILLIGAN	653-659
Glucocorticoids increase insulin binding and the amount of insulin-receptor mRNA in human cultured lymphocytes	Y. SHIBASAKI, H. SAKURA, M. ODAWARA, M. SHIBUYA, Y. KANAZAWA, Y. AKANUMA, F. TAKAKU & M. KASUGA	715-719

CONTENTS (continued)

Specific binding of insulin-like growth factors 1 and 2 to the type 1 and type 2 receptors respectively	F. J. BALLARD, M. ROSS, F. M. UPTON & G. L. FRANCIS	721-726
α_1 - and β -Adrenergic receptors in brown adipose tissue of lean (<i>Fa/?</i>) and obese (<i>fa/fa</i>) Zucker rats. Effects of cold-acclimation, sucrose feeding and adrenalectomy	A. RAASMAJA & D. A. YORK	831-838
Platelet-activating factor-induced hydrolysis of phosphatidylinositol 4,5-bisphosphate stimulates the production of reactive oxygen intermediates in macrophages	S. J. HUANG, P. N. MONK, C. P. DOWNES & A. D. WHETTON	839-845
Phosphoinositide metabolism and the calcium response to concanavalin A in S49 T-lymphoma cells. A comparison with thymocytes	M. V. TAYLOR, T. R. HESKETH & J. C. METCALFE	847-855
Heparin uncouples α_2 -adrenoceptors from the G_i -protein in membranes of human platelets	B. WILLUWEIT & K. AKTORIES	857-863
Effects of pertussis toxin on growth factor-stimulated inositol phosphate formation and DNA synthesis in Swiss 3T3 cells	C. W. TAYLOR, D. M. BLAKELEY, A. N. CORPS, M. J. BERRIDGE & K. D. BROWN	917-920
Cell structure and function		
Structure elucidation of two differentiation inducing factors (DIF-2 and DIF-3) from the cellular mould <i>Dictyostelium discoideum</i>	H. R. MORRIS, M. S. MASENTO, G. W. TAYLOR, K. A. JERMYN & R. R. KAY	903-906
BJ LETTERS		
Homology of cellular vitamin A-binding protein with DNA-binding proteins	P. A. TSONIS & P. F. GOETINCK	933-934