

JB COMMENTARY

CHOP is a multifunctional transcription factor in the ER stress response H. Nishitoh 217

JB REFLECTIONS AND PERSPECTIVES

The pioneering spirit of Takashi Sugimura: his studies of the biochemistry of poly(ADP-ribosylation) and of cancer M. Masutani 221

JB REVIEWS

Featured article of the month. Hydroxylation mediates chromatin demethylation Y.-i. Tsukada 229

Featured article of the month. Regulation of bone and cartilage development by network between BMP signalling and transcription factors R. Nishimura, K. Hata, T. Matsubara, M. Wakabayashi and T. Yoneda 247

Featured article of the month. Regulation of intracellular signalling through cysteine oxidation by reactive oxygen species H. Miki and Y. Funato 255

BIOCHEMISTRY

Protein Structure

Important role of methionine 145 in dimerization of bovine β -lactoglobulin H. Ohtomo, K. Fujiwara and M. Ikeguchi 329

NMR and CD analysis of an intermediate state in the thermal unfolding process of mouse lipocalin-type prostaglandin D synthase Y. Miyamoto, Y. Noda, T. Iida, K. Yamaguchi, S. Nishimura, A. Tanaka, S.-i. Segawa and T. Inui 335

Glycobiology and Carbohydrate Biochemistry

Surface plasmon resonance and NMR analyses of anti Tn-antigen MLS128 monoclonal antibody binding to two or three consecutive Tn-antigen clusters A. Matsumoto-Takasaka, S. Hanashima, A. Aoki, N. Yuasa, H. Ogawa, R. Sato, H. Kawakami, M. Mizuno, H. Nakada, Y. Yamaguchi and Y. Fujita-Yamaguchi 273

Enzymology

Regulation of the catalytic domain of protein phosphatase 1 by the terminal region of protein phosphatase 2B B.J. Wang, W. Tang, P. Zhang and Q. Wei 283

Enzyme Inhibitors

Short peptide tools for monitoring caspase and proteasome activities in embryonal and adult rat brain lysates: an approach for the differential identification of proteases I.M. Prudnikov and A.N. Smirnov 299

Biochemistry of Proteolysis

Apolipoprotein A-IV is a novel substrate for matrix metalloproteinases J.Y. Park, J.H. Park, W. Jang, I.-K. Hwang, I.J. Kim, H.-J. Kim, K.-H. Cho and S.-T. Lee 291

MOLECULAR BIOLOGY

Replication and Recombination

The OsGEN-L protein from *Oryza sativa* possesses Holliday junction resolvase activity as well as 5'-flap endonuclease activity Y. Yang, S. Ishino, T. Yamagami, T. Kumamaru, H. Satoh and Y. Ishino 317

Gene Expression

Role of the transcription factor Sp1 in regulating the expression of the murine cathepsin E gene K. Okamoto, Y. Okamoto, T. Kawakubo, J.-i. Iwata, Y. Yasuda, T. Tsukuba and K. Yamamoto 263