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MBP (h): 293T Lysate: sc-117036

BACKGROUND

Myelin basic protein (MBP) is the major extrinsic membrane protein of central nervous system myelin. MBP phosphorylation at Threonine 125 is a complex regulatory process that modulates the contribution of MBP to the stability of the myelin sheath. Mitogen-activated protein kinases modulate MBP phosphorylation during myelinogenesis and in the demyelinating disease multiple sclerosis. MBP phosphorylation is regulated by high-frequency stimulation but not low-frequency stimulation of the alveus, the myelinated output fibers of the hippocampus. It has been proposed that during periods of increased neuronal activity, calcium activates axonal nitric oxide synthase, which generates the intercellular messengers nitric oxide and superoxide and regulates the phosphorylation state of MBP by MAPK.

REFERENCES

1. Fraser, P.E. and Deber, C.M. 1985. Structure and function of the proline-rich region of myelin basic protein. *Biochemistry* 24: 4593-4598.
2. Potter, N.T., Hashim, G.A. and Day, E.D. 1986. Identification of an antigenic determinant within the phylogenetically conserved triprolyl region of myelin basic protein. *J. Immunol.* 136: 516-520.
3. Persaud, R., Fraser, P., Wood, D.D. and Moscarello, M.A. 1988. The glycosylation of human myelin basic protein at Threonines 95 and 98 occurs sequentially. *Biochim. Biophys. Acta* 966: 357-361.
4. Yon, M., Ackerley, C.A., Mastronardi, F.G., Groome, N. and Moscarello, M.A. 1996. Identification of a mitogen-activated protein kinase site in human myelin basic protein *in situ*. *J. Neuroimmunol.* 65: 55-59.
5. Atkins, C.M., Yon, M., Groome, N.P. and Sweatt, J.D. 1999. Regulation of myelin basic protein phosphorylation by mitogen-activated protein kinase during increased action potential firing in the hippocampus. *J. Neurochem.* 73: 1090-1097.
6. Bielekova, B., Goodwin, B., Richert, N., Cortese, I., Kondo, T., Afshar, G., Gran, B., Eaton, J., Antel, J., Frank, J.A., McFarland, H.F. and Martin, R. 2000. Encephalitogenic potential of the myelin basic protein peptide (amino acids 83-99) in multiple sclerosis: results of a phase II clinical trial with an altered peptide ligand. *Nat. Med.* 6: 1167-1175.
7. Chignola, R., Cestari, T., Guerriero, C., Riviera, A.P., Ferrari, S., Brendolan, A., Gobbo, M., Amato, S., Sartoris, S., Fracasso, G., Liuzzi, M.G., Riccio, P., Tridente, G. and Andrighetto, G. 2000. Expression of myelin basic protein (MBP) epitopes in human non-neural cells revealed by two anti-MBP IgM monoclonal antibodies. *Clin. Exp. Immunol.* 122: 429-436.
8. Whitaker, J.N., Wolinsky, J.S., Narayana, P.A., Bartolucci, A.A., Noseworthy, J.H., Lublin, F.D., Linde, A., Gjorstrup, P., Sullivan, H.C.; North American Linomide Investigators. 2001. Relationship of urinary myelin basic protein-like material with cranial magnetic resonance imaging in advanced multiple sclerosis. *Arch. Neurol.* 58: 49-54.
9. Harness, J. and McCombe, P.A. 2001. The effects of pregnancy on myelin basic protein-induced experimental autoimmune encephalomyelitis in Lewis rats: suppression of clinical disease, modulation of cytokine expression in the spinal cord inflammatory infiltrate and suppression of lymphocyte proliferation by pregnancy sera. *Am. J. Reprod. Immunol.* 46: 405-412.

CHROMOSOMAL LOCATION

Genetic locus: MBP (human) mapping to 18q23.

PRODUCT

MBP (h): 293T Lysate represents a lysate of human MBP transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

MBP (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive MBP antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.