

Rabbit polyclonal antibody to human MBP (289-304): Affinity purified

Catalogue No.:	R-1578-100
Description:	<p>Myelin is a membrane characteristic of the nervous tissue and functions as an insulator to increase the velocity of the stimuli being transmitted between a nerve cell body and its target. Myelin isolated from human and bovine nervous tissue is composed of approximately 80% lipid and 20% protein, and 30% of the protein fraction constitutes myelin basic protein (MBP). MBP is an 'intrinsically unstructured' protein with a high proportion (approximately 75%) of random coil, but postulated to have core elements of beta-sheet and alpha-helix. MBP is a major protein in CNS myelin and is expressed specifically in the nervous system. A detailed immunochemical examination of monoclonal and polyclonal antibody responses to MBP and its peptides has revealed the existence of as many as 27 antigenic determinants, many of them conformational. Topological mapping of the potential antigenic determinants onto a model of MBP secondary structure places these determinants within 11 separate regions of the molecule, including those portions that have been found to be encephalitogenic. The message for myelin basic protein is selectively translocated to the ends of the cell processes. Immunization with myelin-associated antigens including MBP significantly promotes recovery after spinal cord contusion injury in the rat model. FUNCTION: Is, with PLP, the most abundant protein component of the myelin membrane in the CNS. Has a role in both the formation and stabilization of this compact multilayer arrangement of bilayers. Each splice variant and charge isomer may have a specialized function in the assembly of an optimized, biochemically functional myelin membrane (By similarity). SUBUNIT: Homodimer (By similarity). SUBCELLULAR LOCATION: Myelin membrane; peripheral membrane protein; cytoplasmic side. Cytoplasmic side of myelin. TISSUE SPECIFICITY: Found in both the central and the peripheral nervous system.</p>
Batch No.:	See product label
Unit size:	100 ug
Antigen:	A synthetic peptide corresponding to a region (289-304 aa) from the C-terminus of human Myelin Basic Protein (MBP). This sequence also corresponds to a region on rat MBP (180-195 aa).
Sequence:	KLGGDRSRSGSPMARR
Other Names:	Myelin Basic Protein; Myelin A1 protein; Myelin membrane encephalitogenic protein;
Accession:	P02686 MBP_HUMAN
Produced in:	Rabbit
Purity:	Affinity purified on antigen column
Applications:	Immunohistochemistry (IHC) and Western Blotting (WB). A concentration of 1.0 ug/mL is recommended for WB. Human MBP (isoform #1, Golli-MBP1) has a predicted length of 304 residues and MW of 33 kDa. A concentration of 1.0 ug/mL is recommended to detect MBP in paraffin embedded tissues. Biosensis recommends optimal dilutions/concentrations should be determined by the end user.

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Specificity:	The specificity of this antibody has been confirmed by WB and IHC against the antigen.
Cross-reactivity:	Human; rat; expected to react with mouse due to sequence homology
Form:	Lyophilized with 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg Thimerosal, 0.05mg NaN ₃ added as preservative
Reconstitution:	Reconstitute in 100 uL of sterile distilled water to achieve an antibody concentration of 1 mg/mL. Centrifuge to remove any insoluble material.
Storage:	After reconstitution, aliquot and store at -20C for a higher stability. Avoid freeze-thaw cycles.
Expiry Date:	12 months after purchase
References:	<ol style="list-style-type: none">1. Schwartz, et al., Prog Brain Res 137, 401-6 (2002)2. Hauben, et al., J Clin Invest 108, 591-9 (Aug, 2001)3. Yoles, et al., J Neurosci 21, 3740-8 (Jun 1, 2001)4. Hauben, et al., J Neurosci 20, 6421-30 (Sep 1, 2000)5. Harauz, et al., Nature 389, 783-4 (1997). Micron 35, 503-42 (2004)6. Givogri, et al., J Neurosci Res 59, 153-9 (Jan 15, 2000)7. Kim, et al., Int J Biochem Cell Biol 29, 743-51 (May, 1997)8. Kalwy, et al., Mol Membr Biol 11, 67-78 (Apr-Jun, 1994)9. Wajgt, et al., Acta Neurol Scand 68, 337-43 (Nov, 1983)10. Day, et al., J Neuroimmunol 10, 289-312 (Feb, 1986)11. Mikoshiba, et al., Comp Biochem Physiol C 98, 51-61 (1991)12. Brophy, et al., Trends Neurosci 16, 515-21 (Dec, 1993)13. Matsuo, A. et al. (1997) Am. J. Pathol. 150(4): 1253-1266

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