

Datasheet: MCA408S

Description:	RAT ANTI MBP (aa36-50)
Specificity:	MBP (aa36-50)
Other names:	MYELIN BASIC PROTEIN
Format:	S/N
Product Type:	Monoclonal Antibody
Clone:	14
Isotype:	IgG2b
Quantity:	2 ml

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry			■	
Immunohistology - Frozen (1)	■			
Immunohistology - Paraffin		■		
ELISA	■			
Immunoprecipitation			■	
Western Blotting			■	
Immunofluorescence	■			

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

(1)The epitope recognised by this antibody is reported to be sensitive to formaldehyde fixation and tissue processing. Bio-Rad recommends the use of acetone fixation for frozen sections.

Target Species	Bovine
Species Cross Reactivity	<p>Reacts with: Human</p> <p>Based on sequence similarity, is expected to react with:Chicken, Horse</p> <p>N.B. Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for</p>

further information.

Product Form	Tissue Culture Supernatant - liquid
Buffer Solution	0.1M TRIS
Preservative Stabilisers	<0.1% Sodium Azide (NaN ₃)
Immunogen	Bovine myelin basic protein
External Database Links	UniProt: P02687 Related reagents Entrez Gene: 618684 MBP Related reagents
RRID	AB_325007
Fusion Partners	Spleen cells from immunized outbred rats were fused with cells of the mouse NS0 myeloma cell line.
Specificity	<p>Rat anti MBP antibody, clone 14 recognizes myelin basic protein (MBP), a component of myelin that is believed to play a role in the myelination of nerves in the central nervous system.</p> <p>Rat anti MBP antibody, clone 14 has also been reported to work in western blotting (Relucio <i>et al.</i> 2009).</p>
References	<ol style="list-style-type: none">1. Groome, N.P. <i>et al.</i> (1986) Region-specific immunoassays for human myelin basic protein. J Neuroimmunol. 12 (4): 253-64.2. Glynn, P. <i>et al.</i> (1987) Basic protein dissociating from myelin membranes at physiological ionic strength and pH is cleaved into three major fragments. J Neurochem. 48 (3): 752-9.3. Groome, N. <i>et al.</i> (1988) New monoclonal antibodies reactive with defined sequential epitopes in human myelin basic protein. J Neuroimmunol. 19 (4): 305-15.4. Matsuo, A. <i>et al.</i> (1997) Unmasking of an unusual myelin basic protein epitope during the process of myelin degeneration in humans: a potential mechanism for the generation of autoantigens. Am J Pathol. 150: 1253-66.5. Jackson, S.J. <i>et al.</i> (2004) Cannabinoid-mediated neuroprotection following interferon-gamma treatment in a three-dimensional mouse brain aggregate cell culture. Eur J Neurosci. 20: 2267-75.6. Friess, M. <i>et al.</i> (2016) Intracellular ion signaling influences myelin basic protein synthesis in oligodendrocyte precursor cells. Cell Calcium. 60 (5): 322-30.7. Ou-yang, M.H. <i>et al.</i> (2015) N-terminal region of myelin basic protein reduces fibrillar amyloid-β deposition in Tg-5xFAD mice. Neurobiol Aging. 36 (2): 801-11.8. Biffi, A. <i>et al.</i> (2006) Gene therapy of metachromatic leukodystrophy reverses neurological damage and deficits in mice. J Clin Invest. 116 (11): 3070-82.

9. Copray, J.C. *et al.* (2005) p75NTR independent oligodendrocyte death in cuprizone-induced demyelination in C57BL/6 mice. [Neuropathol Appl Neurobiol. 31 \(6\): 600-9.](#)
10. Jagielska, A. *et al.* (2017) Mechanical Strain Promotes Oligodendrocyte Differentiation by Global Changes of Gene Expression. [Front Cell Neurosci. 11: 93.](#)
11. Dias, D.O. *et al.* (2021) Pericyte-derived fibrotic scarring is conserved across diverse central nervous system lesions. [Nat Commun. 12 \(1\): 5501.](#)
12. Kornfeld, S.F. *et al.* (2024) Loss of miR-145 promotes remyelination and functional recovery in a model of chronic central demyelination. [Commun Biol. 7 \(1\): 813.](#)

Storage	This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C. Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10451 available at: https://www.bio-rad-antibodies.com/SDS/MCA408S 10451
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Rat IgG (STAR16...)	DyLight®800
Rabbit Anti Rat IgG (STAR17...)	FITC
Goat Anti Rat IgG (STAR73...)	RPE
Rabbit Anti Rat IgG (STAR21...)	HRP
Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...)	DyLight®550 , DyLight®650 , DyLight®800
Goat Anti Rat IgG (STAR131...)	Alk. Phos. , Biotin
Goat Anti Rat IgG (STAR72...)	HRP
Goat Anti Rat IgG (STAR69...)	FITC

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To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://www.bio-rad-antibodies.com/datasheets)
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