

## Datasheet: MCA408S

**BATCH NUMBER 166210**

<b>Description:</b>	RAT ANTI MBP (aa36-50)
<b>Specificity:</b>	MBP (aa36-50)
<b>Other names:</b>	MYELIN BASIC PROTEIN
<b>Format:</b>	S/N
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	14
<b>Isotype:</b>	IgG2b
<b>Quantity:</b>	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](http://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.**

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

personal communications from the originators. Please refer to references indicated for further information.

<b>Product Form</b>	Tissue Culture Supernatant - liquid
<b>Buffer Solution</b>	0.1M TRIS
<b>Preservative Stabilisers</b>	<0.1% Sodium Azide (NaN <sub>3</sub> )
<b>Immunogen</b>	Bovine myelin basic protein
<b>External Database Links</b>	<b>UniProt:</b> <a href="#">P02687</a> <a href="#">Related reagents</a>  <b>Entrez Gene:</b> <a href="#">618684</a> MBP <a href="#">Related reagents</a>
<b>RRID</b>	AB_325007
<b>Fusion Partners</b>	Spleen cells from immunized outbred rats were fused with cells of the mouse NS0 myeloma cell line.
<b>Specificity</b>	<b>Rat anti MBP antibody, clone 14</b> 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.  Rat anti MBP antibody, clone 14 has also been reported to work in western blotting ( <a href="#">Relucio et al. 2009</a> ).
<b>References</b>	<ol style="list-style-type: none"><li>1. Groome, N.P. <i>et al.</i> (1986) Region-specific immunoassays for human myelin basic protein. <a href="#">J Neuroimmunol. 12 (4): 253-64.</a></li><li>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. <a href="#">J Neurochem. 48 (3): 752-9.</a></li><li>3. Groome, N. <i>et al.</i> (1988) New monoclonal antibodies reactive with defined sequential epitopes in human myelin basic protein. <a href="#">J Neuroimmunol. 19 (4): 305-15.</a></li><li>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. <a href="#">Am J Pathol. 150: 1253-66.</a></li><li>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. <a href="#">Eur J Neurosci. 20: 2267-75.</a></li><li>6. Friess, M. <i>et al.</i> (2016) Intracellular ion signaling influences myelin basic protein synthesis in oligodendrocyte precursor cells. <a href="#">Cell Calcium. 60 (5): 322-30.</a></li><li>7. Ou-yang, M.H. <i>et al.</i> (2015) N-terminal region of myelin basic protein reduces fibrillar amyloid-<math>\beta</math> deposition in Tg-5xFAD mice. <a href="#">Neurobiol Aging. 36 (2): 801-11.</a></li><li>8. Biffi, A. <i>et al.</i> (2006) Gene therapy of metachromatic leukodystrophy reverses</li></ol>

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.](#)

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**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.

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**Guarantee** 12 months from date of despatch

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**Health And Safety Information** Material Safety Datasheet documentation #10451 available at: <https://www.bio-rad-antibodies.com/SDS/MCA408S10451>

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**Regulatory** For research purposes only

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## Related Products

### Recommended Secondary Antibodies

Rabbit Anti Rat IgG (STAR16...)	<a href="#">DyLight®800</a>
Rabbit Anti Rat IgG (STAR17...)	<a href="#">FITC</a>
Goat Anti Rat IgG (STAR72...)	<a href="#">HRP</a>
Goat Anti Rat IgG (STAR69...)	<a href="#">FITC</a>
Goat Anti Rat IgG (STAR73...)	<a href="#">RPE</a>
Rabbit Anti Rat IgG (STAR21...)	<a href="#">HRP</a>
Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...)	<a href="#">DyLight®550</a> , <a href="#">DyLight®650</a> , <a href="#">DyLight®800</a>
Goat Anti Rat IgG (STAR131...)	<a href="#">Alk. Phos.</a> , <a href="#">Biotin</a>

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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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