Datasheet: MCA185

Description:	MOUSE ANTI MBP (aa82-91)
Specificity:	MBP (aa82-91)
Other names:	MYELIN BASIC PROTEIN
Format:	Ascites
Product Type:	Monoclonal Antibody
Clone:	10
Isotype:	IgG2a
Quantity:	0.25 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	▪			1/100
Immunohistology - Paraffin			▪	
ELISA	▪			
Immunoprecipitation			▪	
Western Blotting	▪			

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.

Target Species	Bovine
Product Form	Ascites fluid - liquid
Preservative Stabilisers	0.09% Sodium Azide
Immunogen	Bovine Myelin Basic protein (MBP) (45-91) / Ovalbumin Conjugate
External Database Links	**UniProt:** P02687 Related reagents **Entrez Gene:** 618684 MBP Related reagents
Fusion Partners	Spleen cells from immunised A/J mice were fused with cells of the NS0 mouse myeloma cell line.

Specificity	**Mouse anti Human MBP antibody, clone 10** recognizes the synthetic peptide 82-91 and human and bovine 45-91 but not with whole native MBP molecule (Martensen numbering). This epitope is located in the C terminal region of 82-91 and the corresponding epitope is not present (or exposed) in whole MBP. The clone was selected using synthetic human MBP peptide 82-91 for screening (Groome, N.P. *et al* 1985). Since this work was done a sequence error has been described in the human MBP sequence in this region (Gibson, *et al.* 1984). Although the clone was selected to have a high affinity for 82-91 it appears that this antibody reacts more strongly with the unnatural sequence, rather than the correct human 82-91. In consequence the antibody is not a suitable reagent for sensitive immunoassays of correct human 82-91 as was thought at the time the original paper on this antibody was published. The 91-92 phe-phe bond is believed to be cleaved by demyelinating lesions by Cathepsin D to generate peptides ending in the phe 91 which should react with this monoclonal.
References	1. Groome, N. *et al.* (1985) Preparation and properties of monoclonal antibodies to myelin basic protein and its peptides. Neurochem Int. 7 (2): 309-17. 2. Martensen, R.W. (1984) A useful model for multiple sclerosis in Experimental Allergic Encephalomyelitis. in: Experimental Allergic Encephalomyelitis. (Alvord E.C., Kies, M.W. and Suckling, A.J. eds). pp 511-521 Alan Liss N.Y. 3. Gibson, B.W. *et al.* (1984) Amino acid sequence of human myelin basic protein peptide 45-89 as determined by mass spectrometry. J Biol Chem. 259 (8): 5028-31. 4. Sakuma, H. *et al.* (2006) Quantitation of myelin oligodendrocyte glycoprotein and myelin basic protein in the thymus and central nervous system and its relationship to the clinicopathologic features of autoimmune encephalomyelitis. J Neurosci Res. 84: 606-13.
Storage	Store at +4^{o}C or at -20^{o}C if preferred. This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.
Shelf Life	18 months from date of despatch.
Health And Safety Information	Material Safety Datasheet documentation available at: Material Safety Datasheet Documentation #10081 available at: https://www.bio-rad-antibodies.com/uploads/MSDS/10081.pdf
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

MOUSE IgG2a NEGATIVE CONTROL (MCA929)

North & South America Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: antibody_sales_us@bio-rad.com

Worldwide Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: antibody_sales_uk@bio-rad.com

Europe Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com

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