

Anti-Myelin Basic Protein, a.a. 82-87

Monoclonal Antibody

Cat. # MAB386

Lot # LV1505487

pack size: 1 mL

Store at -20°C

FOR RESEARCH USE ONLY
NOT FOR USE IN HUMANS



Certificate of Analysis

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Applications	Species Cross-Reactivity	Antibody Isotype	Epitope/Region	Host Species	Molecular Weight	Accession #
WB, ELISA, IH, RIA	B, Ch, Gp, H, M, R, Sh, Rb	IgG2a	a.a. 82-87	R	18-20 kDa	NM_001025094.1

Background

The two major components of CNS myelin are Myelin Basic Protein (MBP) and proteolipid protein (PLP), occurring in roughly equimolar proportions. There are many neurological disorders associated with deficiencies of myelin assembly and structure. For example Multiple Sclerosis is a human disease due to multiple factors but generally characterized by the degradation of the myelin sheath. MBP usually refers to the 18.5 kDa isoform, which is one of the most abundant proteins of the myelin sheath of adult human and bovine CNS. Genetically, MBP is the product of differential splicing of a single mRNA transcript. In humans there are 4 isoforms, 21.5, 20.2, 18.5, and 17.2 kDa. Thus, MBP are present in multiple isoforms, part of a large family of developmentally expressed, translocatable, and highly post-translationally modified proteins with multiple binding partners. Structurally, MBP displays a predominately unorganized form with greater than 75% in random coil. Other non-CNS related functions of myelin include insulin induction and glucagon release from pancreatic islets.

Presentation

Liquid containing 0.09% sodium azide.

Specificity

Reacts with MBP from all species tested. It reacts weakly with peptides ending in the phe 91 where the 91-92 phe-phe bond is broken. Synthetic peptide 82-99 reacts very well as does intact MBP. Mapped to the region DENPVV.

Immunogen

Bovine myelin basic protein

Molecular Weight

18-20 kDa

Storage and Handling

Stable for 1 year at -20°C in undiluted aliquots from date of receipt.

Handling Recommendations: Upon receipt, and prior to removing the cap, centrifuge the vial and gently mix the solution. Aliquot into microcentrifuge tubes and store at -20°C. Avoid repeated freeze/thaw cycles, which may damage IgG and affect product performance.

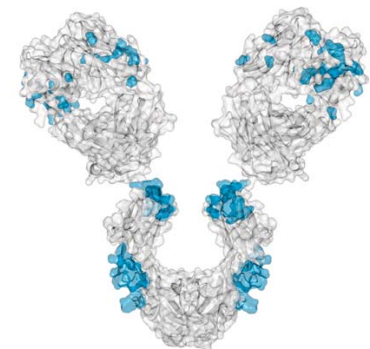
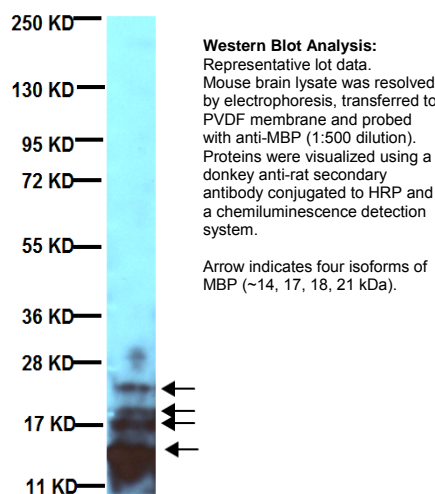
Control

Brain tissue

Quality Control Testing

Evaluated by Western Blot on Mouse brain lysates.

Western Blot Analysis: 1:500 dilution of antibody lot detected four isoforms of MBP on 10 µg of Mouse brain lysates.



References

1. Delhaye, Sophie, *et al.* (2006). *Proc Natl Acad Sci USA*. 103:7835-7840.
2. Chen, Jian, *et al.* (2005). *J Neurotrauma*. 22:896-906.
3. Hruby S, *et al.* (1987). *Molecular Immunology*. 24:1359-1364.
4. Glynn P, *et al.* (1987). *J. Neurochem*. 48:752-759.
5. Groome NP, *et al.* (1986). *J. Neuroimmunol*. 12:253-264.

Additional Research Applications

Immunohistochemistry: A previous lot of this antibody was used on frozen sections.

ELISA/RIA: A previous lot of this antibody was used in ELISA/RIA.

Optimal working dilutions must be determined by end user.

APPLICATION LEGEND: WB Western Blotting ELISA Enzyme-linked Immunosorbent Assay IP Immunoprecipitation

IC Immunocytochemistry IF Immunofluorescence IH Immunohistochemistry (Tissue) RIA Radioimmunoassay

SPECIES LEGEND: B Bovine Ch Chicken Gp Guinea Pig H Human M Mouse R Rat Rb Rabbit Sh Sheep

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PROTOCOL

Western Blot

1. Perform SDS-polyacrylamide gel electrophoresis (SDS-PAGE) on cell lysate and transfer the proteins to a PVDF membrane. Wash the PVDF membrane twice with water.
2. Block the blotted PVDF membrane in freshly prepared 5% BSA or milk with 0.05% Tween®-20 for 1 hour at room temperature with constant agitation.
3. Incubate the PVDF with the recommended dilution of Anti-Myelin Basic Protein, a.a. 82-87 diluted in freshly prepared 5% BSA or milk for 1 hour at room temperature or overnight with agitation at 2-8°C.
4. Wash the PVDF 3 times with TBST.
5. Incubate the PVDF in the secondary reagent of choice (a Donkey anti-Rat IgG, HRP conjugate, Catalog # AP189P 1:1000 dilution was used) in 5% milk for 1 hour with agitation at room temperature.
6. Wash the PVDF 3-5 times with TBST.
7. Use Spray and Glow Catalog # 17-373 to visualize results. Use as directed.

RELATED PRODUCTS (specific)

cat #	description
05-675	■ Anti-MBP, clone SKB3
AB5864	■ Anti-Myelin Basic Protein
AB9046	■ Anti-Myelin Basic Protein
AB9348	■ Anti-Myelin Basic Protein
AB980	■ Anti-Myelin Basic Protein
MAB387-1ML	■ Anti-Myelin Basic Protein (84-89)
MAB381	■ Anti-Myelin Basic Protein, a.a. 119-131, clone 2
MAB395-1ML	■ Anti-Myelin Basic Protein, a.a. 36-50, clone 14
MAB384-1ML	■ Anti-Myelin Basic Protein, a.a. 67-74, clone 26
MAB382	■ Anti-Myelin Basic Protein, a.a. 129-138, clone 1
MAB389	■ Anti-Myelin Basic Protein, a.a. 82-91, clone 10
05-705	■ Anti-phospho-MBP, clone BK403
05-705MG	■ Anti-phospho-MBP, clone BK403
05-429	■ Anti-phospho-MBP, clone P12
16-198	■ Anti-phospho-MBP, HRP conjugate
16-206	■ Anti-phospho-MBP, HRP conjugate
35-003	■ MBPK Antibody - Green, 20X
35-005	■ MBPK Antibody - Red, 20X
13-104	■ MBP (myelin basic protein), bovine, purified
13-111	■ MBP, biotin conjugate
13-110	■ MBP, Dephosphorylated
13-173	■ MBP, recombinant
AG42P	■ Myelin Basic Protein, human
AG42P-1MG	■ Myelin Basic Protein, human
30-100	■ KINLISA MBP Kinase Flex Assay Kit
17-353	■ MBP Assay Kit, 96-well, Chemiluminescence Detection
42-009A	■ Beadlyte® Myelin Basic Protein (MBP) Beads
30-011	■ MBP Coated Microplate, 96 Well
12-551	■ MBPK Substrate
20-288	■ MBPK Tracer, Fluorescein, 100X
20-300	■ MBPK Tracer-645nm FarRed, 100X
AP136P	■ Goat anti-Rat IgG, Peroxidase Conjugated

RELATED PRODUCTS (non-specific)

cat #	description
IPVH00010	■ Immobilon-P 26.5 cm x 3.75 m Roll PVDF 0.45 µm
IPFL00010	■ Immobilon-FL 26.5 cm x 3.75 m Roll PVDF 0.45 µm
IPVH07850	■ Immobilon-P 7 x 8.4 cm PVDF 0.45 mm (sheet) 50/pk
ISEQ00010	■ Immobilon-P SQ 26.5 cm x 3.75 m 1 roll PVDF 0.2 µm
ISEQ07850	■ Immobilon-P 7 x 8.4 cm PVDF 0.2 mm (sheet) 50/pk
IPFL07810	■ Immobilon-FL 7 x 8.4 cm PVDF 0.45 mm (sheet) 10/pk
WBKLS0100	■ Immobilon Western Chemilum HRP Substrate 100 mL
17-373	■ Spray & Glow™ ECL WB Detection System 1 ea
2060	■ Re-Blot Western Blot Recycling Kit
2500	■ Re-Blot Plus Western Blot Recycling Kit
B2080-175GM	■ Blot Quick Blocker Membrane Blocking Agent 175G

■ antibodies ■ Multiplex products ■ biotools ■ cell culture ■ enzymes ■ kits ■ proteins/peptides ■ siRNA/cDNA products

Please visit www.millipore.com for additional product information, test data and references

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