

Anti-Myelin Basic Protein, a.a. 129-138, clone 1

Monoclonal Antibody

Cat. # MAB382

Lot # LV1387189

pack size: 2 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, RIA, IH(P) | B, H, R | IgG2a | a.a. 129-138 | M | 19 kDa | NM_001025094.1 |

Background

The classic group of MBP isoforms (isoforms 4-14) are with PLP the most abundant protein components of the myelin membrane in the CNS. They have a role in both its formation and stabilization. The smaller isoforms might have an important role in remyelination of denuded axons in multiple sclerosis. The non-classic group of MBP isoforms (isoforms 1-3/Golli-MBPs) may preferentially have a role in the early developing brain long before myelination, maybe as components of transcriptional complexes, and may also be involved in signaling pathways in T-cells and neural cells. Differential splicing events combined to optional posttranslational modifications give a wide spectrum of isomers, each of them having maybe a specialized function. MBP isoforms are found in both the central and the peripheral nervous system, whereas Golli-MBP isoforms are expressed in fetal thymus, spleen and spinal cord, as well as in cell lines derived from the immune system. Isoform 1 Golli-MBP1, HOG7, 33 kDa; Isoform 2 Golli-MBP2, HOG5, 21.5 kDa; Isoform 3 MBP1, 21.5 kDa; Isoform 4 MBP2, 20.2 kDa; Isoform 5 MBP3, 18.5 kDa; Isoform 6 MBP4, 17.2 kDa; (SP_P02686).

Presentation

Liquid culture supernatant containing 0.2 M Tris/HCl, pH 7.4 with 5-10% fetal calf serum and 0.1% sodium azide

Specificity

Reacts with MBP from human, bovine and rat, epitope 129-138

Species Cross-reactivity

Reacts weakly with rabbit. Does not react with guinea pig.

Immunogen

Bovine myelin basic protein

Molecular Weight

19 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

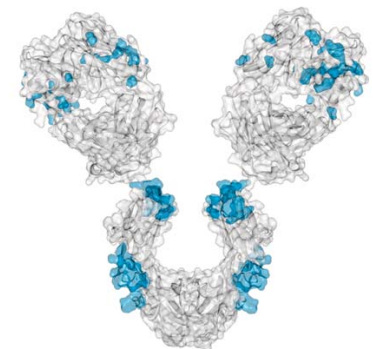
Brain tissue

Quality Control Testing

Routinely evaluated by immunohistochemistry on brain tissue.

Immunohistochemistry(paraffin) Analysis: MBP (cat. # MAB382) staining pattern/morphology in rat cerebellum. Tissue pretreated with Citrate, pH 6.0. This lot of antibody was diluted to 1:50, using IHC-Select® Detection with HRP-DAB. Immunoreactivity is seen as fiber staining in the junction between granular layer and molecular layer.

Optimal Staining With Citrate Buffer, pH 6.0, Epitope Retrieval: Rat Cerebellum



References

1. Martin, S. et al.. J. Neurosci., 21(20):8119-8128 (2001).
2. Groome NP, et al.. J. Neuroimmunol, 12:253-264 (1986).

APPLICATION LEGEND: WB Western Blotting ELISA Enzyme-linked Immunosorbent Assay RIA Radioimmunoassay

IP Immunoprecipitation IC Immunocytochemistry IF Immunofluorescence IH(P) Immunohistochemistry (Paraffin)

SPECIES LEGEND: B Bovine H Human M Mouse R Rat Rb Rabbit WR Most Common Vertebrates

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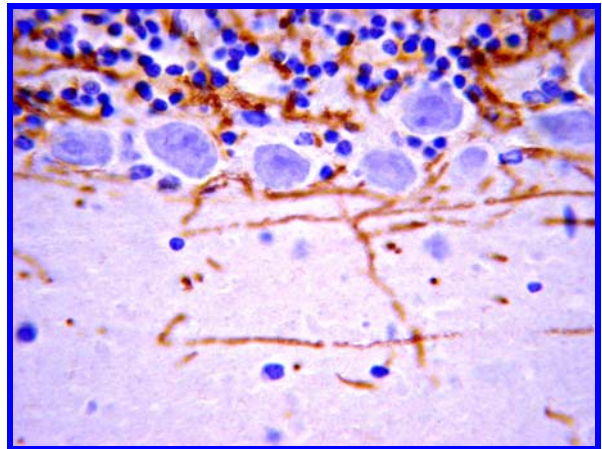
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Additional Research Applications

Immunohistochemistry(paraffin) Analysis:

Representative image from a previous lot.

**Optimal Staining With Citrate Buffer, pH 6.0, Epitope Retrieval:
Rat Cerebellum**



MBP (cat. # MAB382) staining pattern/morphology in rat cerebellum. Tissue pretreated with Citrate, pH 6.0. A previous lot of this antibody was diluted to 1:50, using IHC-Select® Detection with HRP-DAB. Immunoreactivity is seen as fiber staining in the junction between granular layer and molecular layer. High Magnification.

Western Blot Analysis: A previous lot of this antibody was used in Western Blot.

ELISA: A 1:200-1:1,000 dilution of a previous lot was used in ELISA.

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

Optimal working dilutions must be determined by end user.

PROTOCOL

Immunohistochemistry

1. Use standard deparaffinization techniques on tissue specimens.
2. Pretreat tissues using a citrate buffer, pH 6.0 and high heat epitope retrieval techniques.
Note: Do not allow tissues to dry out during the staining procedure.

The following steps are taken from the product manual for IHC Select® HRP/DAB Detection Kit (Cat. No. DAB050)

3. Apply the blocking reagent to the tissue specimen and incubate in an enclosed chamber for 5 minutes.
4. While holding the slide at a 45o angle, gently rinse the specimen with 1X Rinse Buffer for a minimum of 15 seconds. Tap the end of the slide onto a paper towel to remove excess Rinse Buffer.
5. Apply a 1:50 dilution of primary antibody over the entire tissue specimen and incubate in an enclosed chamber at room temperature for 60 minutes.
6. Rinse specimen as performed in Step 3.
7. Apply the biotinylated secondary antibody to the tissue specimen and incubate in an enclosed chamber for 10 minutes.
8. Rinse specimen as performed in Step 3.
9. Apply the Streptavidin-HRP solution to the tissue specimen and incubate in an enclosed chamber for 10 minutes.
10. Rinse specimen as performed in Step 3.
11. Apply the DAB (chromogen reagent) to the tissue specimen and incubate in an enclosed chamber for 10 minutes.
12. Rinse specimen as performed in Step 3.
13. Apply the Hematoxylin counterstain solution to the tissue specimen and incubate in an enclosed chamber for 1 minute.
14. Rinse specimen as performed in Step 3.
15. Place the tissue slides directly into a container filled with deionized water until mounting.
16. Mount a coverslip using an aqueous-based mounting media or for permanent mounting, dehydrate tissue through a graded series of alcohols, immerse in xylene, then apply a xylene-based mounting media (e.g. Permount) and coverslip.

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

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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 |
| MAB386 | ■ Anti-Myelin Basic Protein, a.a. 82-87 |
| 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 |
| AP124P | ■ Goat anti-Mouse IgG, Peroxidase Conjugated, H+L |

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 |

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