

# Anti-Myelin Basic Protein

Polyclonal Antibody

Cat. # AB980

Lot # JC1641545

pack size: 500  $\mu$ L

Store at 2-8°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, IH(P)	H, M, R	N/A	N/A	Rb	21, 18, 17 & 14 kDa	NM_001025094.1

### Background

The classic group of Myelin basic protein (MBP) isoforms (isoforms 4 to 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 to 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.

### Presentation

Liquid in 0.05 mol/L Tris-HCl, pH 7.6 with 15 mmol/L sodium azide.

### Specificity

Suitable for labeling of oligodendrocytes and myelin of white matter in brain and spinal cord (gray matter stains less abundantly). Also stains peripheral nerves.

### Immunogen

Human myelin basic protein from brain

### Molecular Weight

21, 18, 17 & 14 kDa.

### Method of Purification

Ammonium sulfate precipitation

### Storage and Handling

Stable for 6 months at 2-8°C from date of receipt.

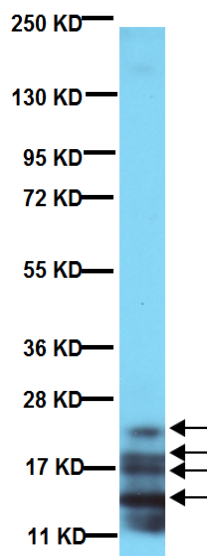
### Control

Brain tissue, brain lysate

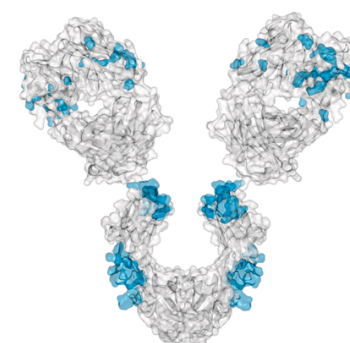
### Quality Control Testing

Evaluated by Western Blot on Mouse brain lysates.

**Western Blot Analysis:** 1:500 dilution of this antibody detected four isoforms of MBP on 10  $\mu$ g of Mouse brain lysates.



**Western Blot Analysis:**  
Representative lot data.  
Mouse brain lysate was resolved by electrophoresis, transferred to PVDF membrane and probed with anti-MBP (1:500 dilution). Proteins were visualized using a donkey anti-rabbit secondary antibody conjugated to HRP and a chemiluminescence detection system.  
Arrow indicates four isoforms of MBP (~14, 17, 18, 21 kDa).



### References

- Hosokawa, M, *et al.* (2003). *Glia*. 42:417-423.
- Kimoto T, *et al.* (2001). *Endocrinol.* 142(8):3578-3589.
- McTigue, D.M., *et al.* (1998). *J. Neurosci.* 18:5354-5365.

### Additional Research Applications

**Immunohistochemistry:** 1:200 dilution of a previous lot was used by PAP or ABC on formalin fixed, paraffin-embedded human spinal cord. Pretreatment of tissue with proteolytic enzyme is not required.

Optimal working dilutions must be determined by the end user.

**APPLICATION LEGEND:** WB Western Blotting IP Immunoprecipitation IC Immunocytochemistry IF Immunofluorescence  
IH(P) Immunohistochemistry (Paraffin)

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

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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<sup>®</sup>-20 for 1 hour at room temperature with constant agitation.
3. Incubate the PVDF with the recommended dilution of Anti-Myelin Basic Protein 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 goat Anti-rabbit HRP conjugated IgG, Catalog # 12-348 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
MAB382	■ Anti-Myelin Basic Protein, a.a. 129-138, clone 1
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
AP132P	■ Goat anti-Rabbit 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

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