

Myelin basic protein antibody

Cat # MBP11-A

Rabbit Anti-Bovine Myelin Basic Protein antibody

SIZE: 100 µg

Myelin is a dielectric (electrically insulating) material that forms a layer, the myelin sheath, usually around only the axon of a neuron. It is essential for the proper functioning of the nervous system. Myelinated axons are white in appearance, hence the "white matter" of the brain. Myelin is composed of about 80% lipid and about 20% protein. Some of the proteins that make up myelin are myelin basic protein (MBP), myelin oligodendrocyte glycoprotein (MOG), and proteolipid protein (PLP). When myelin degrades, conduction of signals along the nerve can be impaired or lost and the nerve eventually withers. Demyelination is the loss of the myelin sheath insulating the nerves, and is the hallmark of some neurodegenerative autoimmune diseases, including multiple sclerosis (MS), acute disseminated encephalomyelitis, transverse myelitis, Alexander's disease, chronic inflammatory demyelinating polyneuropathy, and Guillain-Barré Syndrome.

Knockout mice deficient in MBP have been developed which showed decreased amounts of central nervous system (CNS) myelination and a progressive disorder characterized by tremors, seizures, and early death. The pool of MBP in the CNS is very diverse, with several splice variants being expressed and a large number of post-translational modifications on the protein, which include phosphorylation, methylation, deamidation and citrullination.

Source of Antigen or Antibodies

Uniprot: P02687

Host: Rabbit

Clonality: Polyclonal

Purification: Ammonium sulfate followed by protein affinity chromatography

Immunogen: Purified Bovine brain myelin basic protein

Species reactivity: Bovine and Human.

Cross reactivity: Myelin basic protein shares ~93% homology with Mouse, Rat, and Human. Due to the high degree of homology, it is expected to cross-react

Subcellular Location: Plasma membrane

Alternative names: MBP. 20 kDa microtubule-stabilizing protein. Myelin A1 protein

Recommended Secondary Antibody: Goat anti-Rabbit IgG-HRP (ADI cat#20320)

Form & Storage of Antibodies

Affinity pure IgG Solution

Concentration: 0.5 mg/ml Volume: 200 µl

Supplied in PBS, pH 7.4 + 0.1% BSA

The antibody can be made available carrier free or conjugated to HRP, Biotin, or FITC on request

Lyophilized powder

Reconstitute powder in 200 µl distilled water to 0.5 mg/ml

Storage:

Short-term: 4°C for 1 month

Long-term: at -20°C or below in suitable aliquots after reconstitution for 1 year. Do not expose to multiple freeze/thaw cycles or store working, diluted solutions. Glycerol may be added to a final concentration of 50% and antibodies can be stored un-aliquoted at -20°C.

Recommended Usage

ELISA: Assay dependent concentration. Typically, between 0.1-2.0 µg/ml for capture/detection antibody.

Western Blotting: 0.5-2.0 µg/ml

Immunohistochemistry: 1-10 µg/ml. QC tested using 10 mM sodium citrate pH 6, antigen retrieval buffer. The antibody may work better with no retrieval or different retrieval solutions.

The above concentrations are a *suggestion*, user's must optimize their assay based on their own conditions. The antibody may work in other applications such as Immunofluorescence. These methods have not been tested by ADI.

**This product is for In vitro research use only.*

Related materials available from ADI

Catalog#	Description
GFAP11-A	Rabbit Anti-Mouse phospho Glial fibrillary acidic protein (Ser266) antibody
GFAP21-A	Rabbit Anti-Mouse Glial fibrillary acidic protein (GFAP) antibody
MAPT11-A	Rabbit Anti-Human TAU (S396) antibody
MAPT21-A	Rabbit Anti-Mouse TAU antibody
D2R11-A	Rabbit Anti-Rat Dopamine Receptor 2 (D2R)
D2R12-A	Rabbit Anti-Rat Dopamine Receptor 2 (D2R) (L)
D2R13-A	Rabbit Anti-Human Dopamine Receptor 2 (D2R) (L/S)
D2R13-S	Rabbit Anti-Human Dopamine Receptor 2 (D2R) (L/S)

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