abcam

Product datasheet

HRP Anti-Myelin Basic Protein antibody ab77895

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Overview

Product name HRP Anti-Myelin Basic Protein antibody

Description HRP Rabbit polyclonal to Myelin Basic Protein

Host species Rabbit

Conjugation HRP

Tested applications
Suitable for: Sandwich ELISA
Species reactivity
Reacts with: Mouse, Human, Pig

Immunogen Full length native protein (purified) corresponding to Cow Myelin Basic Protein.

General notes The purified antibody is conjugated to peroxidase (HRP) through reductive amination. Reductive

amination with Ab/HRP ratio: 1/20.

The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets

your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be

found below, along with publications, customer reviews and Q&As

Properties

Form Liquid

Storage instructions Shipped at 4°C. Store at +4°C.

Storage buffer pH: 6.00

Constituents: 5% BSA, 2.94% Sodium citrate, Tris buffered saline

Purity Immunogen affinity purified

Clonality Polyclonal

Isotype IgG

Applications

The Abpromise guarantee Our Abpromise guarantee covers the use of ab77895 in the following tested applications.

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The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Sandwich ELISA		1/10000. To be used as detection antibody. Pair with <u>ab28541 -</u> <u>Rabbit polyclonal to Myelin Basic Protein</u>

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The classic group of MBP isoforms (isoform 4-isoform 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 (isoform 1-isoform 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 with optional post-translational modifications give a wide spectrum of isomers, with each of them potentially having a specialized function. Induces T-cell proliferation.

Tissue specificity

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.

Involvement in disease

Note=The reduction in the surface charge of citrullinated and/or methylated MBP could result in a weakened attachment to the myelin membrane. This mechanism could be operative in demyelinating diseases such as chronical multiple sclerosis (MS), and fulminating MS (Marburg disease).

Sequence similarities

Belongs to the myelin basic protein family.

Developmental stage

Expression begins abruptly in 14-16 week old fetuses. Even smaller isoforms seem to be produced during embryogenesis; some of these persisting in the adult. Isoform 4 expression is more evident at 16 weeks and its relative proportion declines thereafter.

Post-translational modifications

Several charge isomers of MBP; C1 (the most cationic, least modified, and most abundant form), C2, C3, C4, C5, C6, C7, C8-A and C8-B (the least cationic form); are produced as a result of optional PTM, such as phosphorylation, deamidation of glutamine or asparagine, arginine citrullination and methylation. C8-A and C8-B contain each two mass isoforms termed C8-A(H), C8-A(L), C8-B(H) and C8-B(L), (H) standing for higher and (L) for lower molecular weight. C3, C4 and C5 are phosphorylated. The ratio of methylated arginine residues decreases during aging,

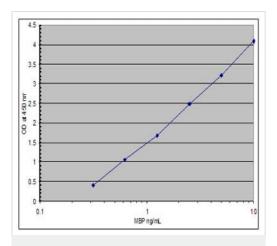
The N-terminal alanine is acetylated (isoform 3, isoform 4, isoform 5 and isoform 6). Arg-241 was found to be 6% monomethylated and 60% symmetrically dimethylated.

Cellular localization

Myelin membrane. Cytoplasmic side of myelin.

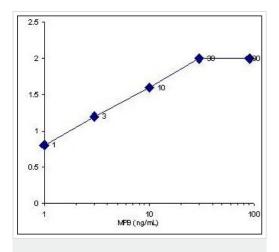
making the protein more cationic.

Images



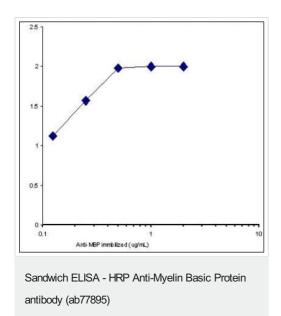
Sandwich ELISA detection of mouse Myelin Basic Protein in the plasma with un-optimized sensitivity 0.1 ng/mL.

Sandwich ELISA - HRP Anti-Myelin Basic Protein antibody (ab77895)



Sandwich ELISA - HRP Anti-Myelin Basic Protein antibody (ab77895)

Fixed Immobilized Anti-MBP (ab28541): 2 ug/mL, 100 ul/well Captured Antigen: Swine MBP , range from 1 to 90 ng/mL Detection: anti-MBP HRP (ab77895), 0.25 ug/mL in 1% BSA and PBSt



Immobilized Anti-MBP (ab28541): range from 0.125 to 2 μg/ml, 100 μl/well

Fixed Captured Antigen: Swine MBP, 500 ng/mL

Detection: anti-MBP HRP (ab77895), 0.25 ug/mL in 1% BSA and PBSt

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