

MBP Antibody (Y203)

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP2766a

Product Information

Application WB, E **Primary Accession** P02686 Reactivity Human Host Rabbit Clonality Polyclonal Isotype Rabbit IgG **Clone Names** RB15523 **Calculated MW** 33117 **Antigen Region** 177-209

Additional Information

Gene ID 4155

Other Names Myelin basic protein, MBP, Myelin A1 protein, Myelin membrane

encephalitogenic protein, MBP

Target/Specificity This MBP antibody is generated from rabbits immunized with a KLH

conjugated synthetic peptide between 177-209 amino acids from human

MBP.

Dilution WB~~1:1000 E~~Use at an assay dependent concentration.

Format Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide.

This antibody is purified through a protein A column, followed by peptide

affinity purification.

Storage Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store

at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions MBP Antibody (Y203) is for research use only and not for use in diagnostic or

therapeutic procedures.

Protein Information

Name MBP

Function 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.

Cellular Location Myelin membrane; Peripheral membrane protein; Cytoplasmic side.

Note=Cytoplasmic side of myelin

Tissue Location 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.

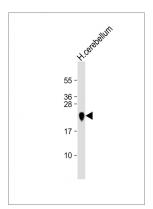
Background

MBP is a major constituent of the myelin sheath of oligodendrocytes and Schwann cells in the nervous system. However, MBP-related transcripts are also present in the bone marrow and the immune system. These mRNAs arise from the long MBP gene (otherwise called Golli-MBP) that contains 3 additional exons located upstream of the classic MBP exons. Alternative splicing from the Golli and the MBP transcription start sites gives rise to 2 sets of MBP-related transcripts and gene products. The Golli mRNAs contain 3 exons unique to Golli-MBP, spliced in-frame to 1 or more MBP exons. They encode hybrid proteins that have N-terminal Golli aa sequence linked to MBP aa sequence. The second family of transcripts contain only MBP exons and produce the well characterized myelin basic proteins. This complex gene structure is conserved among species suggesting that the MBP transcription unit is an integral part of the Golli transcription unit and that this arrangement is important for the function and/or regulation of these genes.

References

Kawamura, K., J. Immunol. 181 (5), 3202-3211 (2008) Majava, V., BMC Struct. Biol. 8, 10 (2008) Boylan, K.B., Genomics 6 (1), 16-22 (1990)

Images



Anti MBP Antibody (Y203) at 1:16000 dilution + human cerebellum lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size: 33 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.