

Myelin Basic Protein(MBP) (ABT-MBP) IHC kit

CatalogNo: IHCM6589

| Key Features | | |
|-------------------------|---|--------------------------------------|
| Host Species • Mouse | ReactivityHuman,Mouse,Rat, | Applications IHC |
| Isotype • IgG1,Kappa | | |

Recommended Dilution Ratios

Storage

Storage* 2°C to 8°C/1 year

Basic Information

| Clonality | Monoclonal |
|--------------|------------|
| Clone Number | ABT-MBP |

Immunogen Information

| Immunogen | Synthesized peptide derived from human Myelin Basic Protein(MBP) AA range: 150-250 |
|-------------|--|
| Specificity | The antibody can specifically recognize human Myelin Basic Protein. |

Target Information

Gene name MBP

Protein Name Myelin basic protein (MBP) (Myelin A1 protein) (Myelin membrane encephalitogenic protein)

| Organism | Gene ID | UniProt ID |
|----------|--------------|----------------|
| Human | <u>4155;</u> | <u>P02686;</u> |

Cellular Cytoplasmic

Localization

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.

Function Alternative products: Additional isoforms seem to exist, 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. Expression of isoform MBP2 is more evident at 16 weeks and its relative proportion declines thereafter., Disease: 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)., 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.,online information:Myelin basic protein entry,PTM:Arg-241 was found to be 6% monomethylated and 60% symmetrically dimethylated.,PTM: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, making the protein more cationic., PTM: The N-terminal alanine is acetylated (isoform 3, isoform 4, isoform 5 and isoform 6)., sequence Caution: Contaminating sequence. The C-terminus contains a Histidine tag., similarity: Belongs to the myelin basic protein family., subcellular location: Cytoplasmic side of myelin., subunit: Homodimer; isoform 3 exists as a homodimer., 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.,

Validation Data



Human cerebrum tissue was stained with Anti-Myelin Basic Protein(MBP) (ABT-MBP) Antibody



Human cerebrum tissue was stained with Anti-Myelin Basic Protein(MBP) (ABT-MBP) Antibody



Human tonsil tissue was stained with Anti-Myelin Basic $\mbox{Protein}(\mbox{MBP})$ (ABT-MBP) Antibody

Contact information

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|------------|--|
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Please scan the QR code to access additional product information: Myelin Basic Protein(MBP) (ABT-MBP) IHC kit

For Research Use Only. Not for Use in Diagnostic Procedures.

Antibody | ELISA Kits | Protein | Reagents