

Rabbit Myelin Basic Protein/MBP Polyclonal Antibody | anti-MBP antibody

Phospho-Myelin Basic Protein/MBP (Thr232) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA329816	Rabbit	Human, Mouse, Rat Predicted Reactivity: Pig (100%), Bovine (100%), Rabbit (100%), Dog (100%), Chicken (86%), Xenopus (86%)	ELISA, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

Myelin Basic Protein/MBP; Polyclonal Antibody; Phospho-Myelin Basic Protein/MBP (Thr232) Antibody; GDB; Golli MBP; myelin basic protein; Hemopoietic MBP; HMBPR; HUGO; MBP; MBP_CAVPO; MBP_HUMAN; MGC99675; MLD; Myelin A1 protein; Myelin A1 Protein; basic; Myelin basic protein; Myelin Deficient; Myelin membrane encephalitogenic protein; OTTHUMP00000163776; OTTHUMP00000174387; OTTHUMP00000174388; SHI; Shiverer; SP; anti-MBP antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat Predicted Reactivity: Pig (100%), Bovine (100%), Rabbit (100%), Dog (100%), Chicken (86%), Xenopus (86%)
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-Myelin Basic Protein/MBP (Thr232) Antibody detects endogenous levels of Myelin Basic Protein/MBP only when phosphorylated at Thr232. 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.
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-MBP antibody	ELISA (Peptide ELISA), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human Myelin Basic Protein/MBP around the phosphorylation site of Thr232.
Conjugation	Unconjugated
Fragment	Fab fragment
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, making the protein more cationic. 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. Phosphorylated by TAOK2, VRK2, MAPK11, MAPK12, MAPK14 and MINK1.
Subunit Structure	Homodimer. Isoform 3 exists as a homodimer.
Similarity	Belongs to the myelin basic protein family.

Subcellular Location	Myelin membrane>Peripheral membrane protein>Cytoplasmic side. Note: Cytoplasmic side of myelin.Nucleus. Note: Targeted to nucleus in oligodendrocytes.
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IHC (Immunohistochemistry)
At 1/100 staining Mouse brain tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)
At 1/100 staining Rat brain tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



WB (Western Blot)
Western blot analysis of MBP (Phospho-Thr232) using Mouse brain tissue lysates.-/+ means absence or presence of N peptide(1/4 non-phospho peptide) and P peptide(phospho peptide).



WB (Western Blot)
Western blot analysis of extracts from Mouse brain tissue, using Phospho-MBP (Thr232) Antibody. Lane1 was treated with phospho-blocking peptide, Lane2 was treated with non-phospho-blocking peptide.



WB (Western Blot)
Western blot analysis of extracts from 3T3-L1P6(heat shock treatment), using Phospho-Myelin Basic Protein/MBP (Thr232) Antibody. The lane on the left was treated with blocking peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-MBP antibody	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.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	1162922
NCBI GeneID	4155
UniProt Accession #	P02686; Q15337; Q15338; Q15339; Q15340; A4FU54; A6NI84; A8MY86; A8MYL4; B3KY66; B7ZKS2; B7ZKS4
Molecular Weight	33,117 Da
NCBI Official Full Name	myelin basic protein
NCBI Official Synonym Full Names	myelin basic protein
NCBI Official Symbol	MBP
NCBI Protein Information	Golli-MBP; myelin basic protein; myelin A1 protein; myelin membrane encephalitogenic protein

UniProt Protein Name	Myelin basic protein
UniProt Gene Name	MBP
UniProt Synonym Gene Names	MBP
UniProt Entry Name	MBP_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/myelin-basic-protein-mbp-antibody-peptide-elisa-immunohistochemistry-western-blot-elisa/329816>