




Rabbit Anti-MBP antibody

SL0380R

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|---|--|
| Product Name: | MBP |
| Chinese Name: | 髓鞘碱性蛋白/磷脂碱性蛋白抗体 |
| Alias: | Myelin Basic Protein; Myelin basic protien; GDB; Golli MBP; Hemopoietic MBP; HMBPR; HUGO; MBP; MGC99675; MLD; Myelin A1 Protein; Myelin Deficient; Myelin Membrane Encephalitogenic Protein; SHI; Shiverer; SP; MBP_HUMAN . |
| 文献引用  | <p>Specific References(4) SL0380R has been referenced in 4 publications.</p> <p>[IF=2.24]Liu, Jia, et al. "Acellular spinal cord scaffold seeded with mesenchymal stem cells promotes long-distance axon regeneration and functional recovery in spinal cord injured rats." Journal of the neurological sciences 325.1 (2013): 127-136.Rat. PubMed:23317924</p> <p>[IF=2.34]Gao, Yuhua, et al. "Isolation of a Pluripotent Neural Stem Cell from the Embryonic Bovine Brain." International Journal of Molecular Sciences 16.3 (2015): 5990-5999.Bovine. PubMed:25782160</p> <p>[IF=2.86]Mori, Miki, et al. "Stromal Cell-Derived Factor-1α Plays a Crucial Role Based on Neuroprotective Role in Neonatal Brain Injury in Rats." International Journal of Molecular Sciences 16.8 (2015): 18018-18032.IHC-F;Rat. PubMed:26251894</p> <p>[IF=4.21]Luo, Guangying, et al. "Paternal bisphenol a diet changes prefrontal cortex proteome and provokes behavioral dysfunction in male offspring." Chemosphere (2017).WB;Mouse. PubMed:28641223</p> |
| Organism Species: | Rabbit |

| | |
|-------------------------------|--|
| Clonality: | Polyclonal |
| React Species: | Human, Mouse, Rat, Pig, Guinea Pig, |
| Applications: | WB=1:500-2000 ELISA=1:500-1000 IHC-P=1:400-800 IHC-F=1:400-800 Flow-Cyt=1ug/test IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user. |
| Molecular weight: | 33kDa |
| Cellular localization: | The nucleus The cell membrane |
| Form: | Lyophilized or Liquid |
| Concentration: | 1mg/ml |
| immunogen: | KLH conjugated synthetic peptide derived from Gpig MBP:69-85/167 |
| Lsotype: | IgG |
| Purification: | affinity purified by Protein A |
| Storage Buffer: | 0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol. |
| Storage: | Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C. |
| PubMed: | PubMed |
| Product Detail: | <p>The classic group of Myelin basic protein (MBP) isoforms (isoforms 4 to 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 (isoforms 1 to 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 to optional posttranslational modifications give a wide spectrum of isomers, each of them having maybe a specialized function.</p> <p>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.</p> <p>Subunit: Homodimer. Isoform 3 exists as a homodimer.</p> <p>Subcellular Location:</p> |

Myelin membrane; Peripheral membrane protein; Cytoplasmic side. Note=Cytoplasmic side of myelin.

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.

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.

Similarity:

Belongs to the myelin basic protein family.

SWISS:

N/A

Gene ID:

100731253

Database links:

[Gene ID: 100731253](#) Guinea pig

[Entrez Gene: 4155](#)Human

[Entrez Gene: 17196](#)Mouse

[Entrez Gene: 414286](#)Pig

[Entrez Gene: 24547](#)Rat

[Omim: 159430](#)Human

[SwissProt: P02686](#)Human

[SwissProt: P04370](#)Mouse

[SwissProt: P81558](#)Pig

[SwissProt: P25274](#)Rabbit

[SwissProt: P02688](#)Rat

[Unigene: 551713](#)Human

[Unigene: 63285](#)Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Neurobiology相关蛋白 (Neurobiology)

少突胶质细胞Maker

主要用于脊髓脱髓鞘病-脊髓多发硬化症的研究。

MBP髓鞘碱性蛋白和髓鞘相伴glycoprotein是多发性硬化的自身免疫攻击的靶。

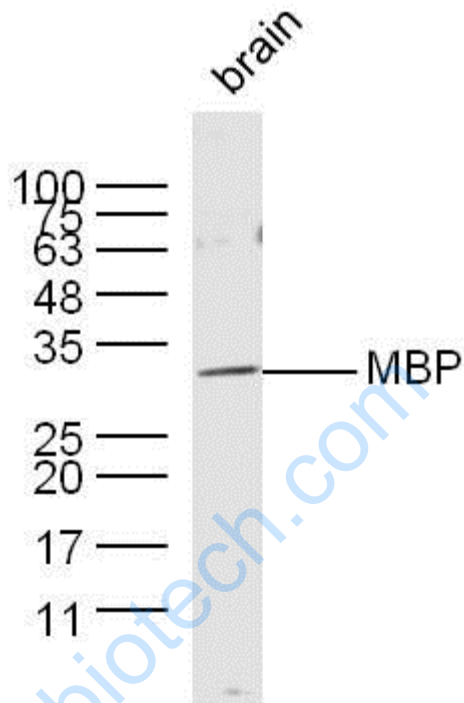
Myelin basic protein (MPB) :Oligodendrocyte Protein produced by mature oligodendrocytes; located in the myelin sheath surrounding neuronal structures

髓磷脂Myelin/oligodendrocyte specific protein

(MOSP)是由中枢神经系统中少突胶质细胞和外周神经系统中雪旺氏细胞产生特殊蛋白质。是形成髓鞘的主要成分,对于引导神经冲动的传递起着至关重要的作用。

多年来,关于髓鞘的形成机理和与其相关的一些先天性疾病的发病机制一直是众多科学家关注的重点。如:多重硬化症和脑白质营养不良等,都与神经系统的去髓鞘化相关。

Picture:



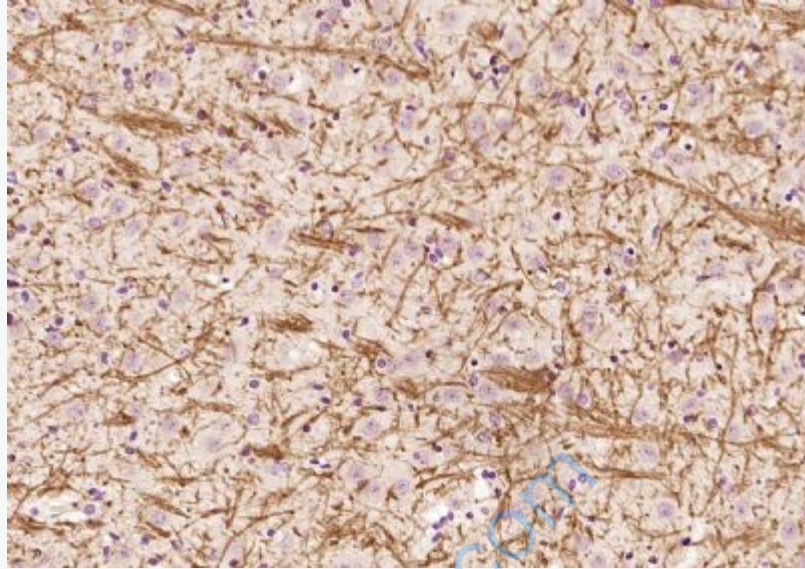
Sample: Brain (Mouse) Lysate at 30 ug

Primary: Anti- MBP (SL0380R) at 1/300 dilution

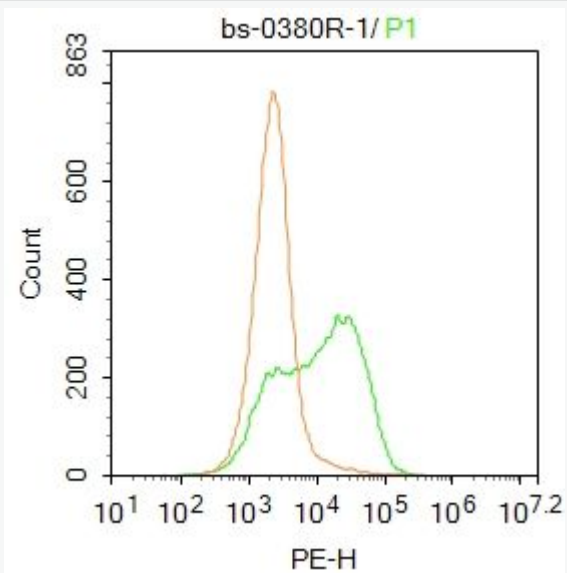
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 33 kD

Observed band size: 33 kD



Paraformaldehyde-fixed, paraffin embedded (Rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (MBP) Polyclonal Antibody, Unconjugated (SL0380R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Blank control:A549.

Primary Antibody (green line): Rabbit Anti-MBP antibody (SL0380R)

Dilution: $1\mu\text{g} / 10^6$ cells;

Isotype Control Antibody (orange line): Rabbit IgG .

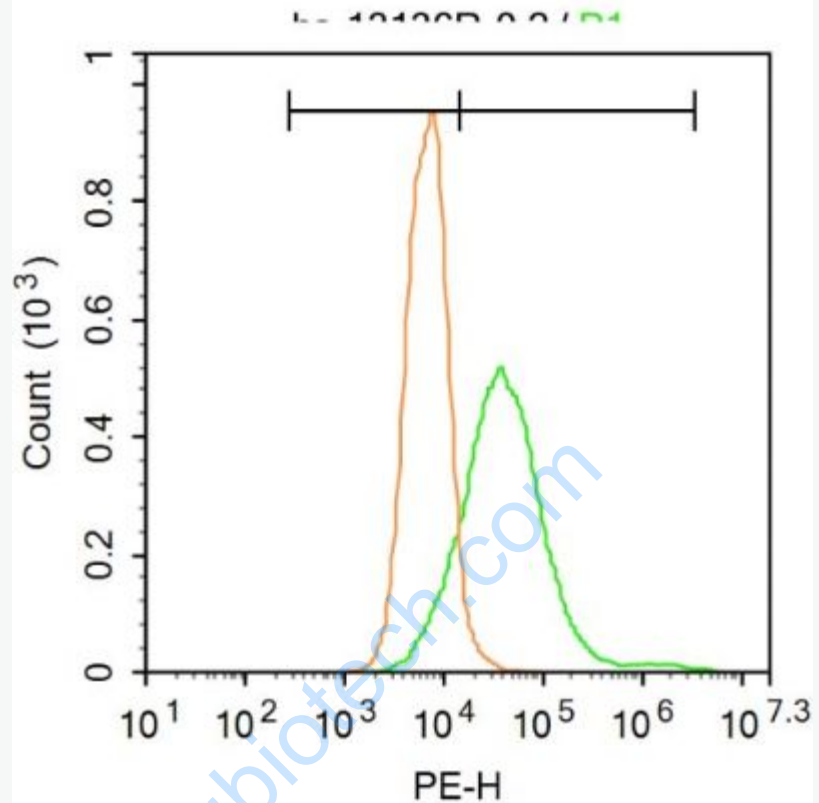
Secondary Antibody : Goat anti-rabbit IgG-PE

Dilution: $1\mu\text{g} / \text{test}$.

Protocol

The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 20% PBST for 20 min at room temperature. The cells were then incubated in 5% BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature.

Acquisition of 20,000 events was performed.



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Isotype Control Antibody (orange line): Rabbit IgG .

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Dilution: $1\mu\text{g}/\text{test}$.

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