

Myelin basic protein

Cat.No. 295 004; Polyclonal Guinea pig antibody, 100 µl antiserum (lyophilized)

Data Sheet

Reconstitution/ Storage	100 µl antiserum, lyophilized. For reconstitution add 100 µl H ₂ O, then aliquot and store at -20°C until use.
Applications	WB: 1 : 1000 (AP staining) IP: not recommended ICC: not tested yet IHC: 1 : 500 IHC-P/FFPE: not tested yet
Immunogen	Synthetic peptide corresponding to AA 105 to 115 from rat MBP (UniProt Id: P02688)
Reactivity	Reacts with: human (P02686), rat (P02688), mouse (P04370). Other species not tested yet.
Specificity	Specific for MBP. Epitope is present in all splice variants.
matching control	295-0P

TO BE USED IN VITRO / FOR RESEARCH ONLY
NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS

The myelin sheath is a multi-layered membrane composed of several proteins like PLP, claudin 11 and **myelin basic protein (MBP)** which is specific for the nervous system. MBP functions as an insulator and increases the velocity of axonal impulse conduction.

MBP can be subdivided into the classic group consisting of isoforms 4 to 14 and the non-classic group of MBP comprising the Golli MBPs (isoforms 1 to 3). Differential splicing events and optional posttranslational modifications give rise to a wide spectrum of isomers with potentially specialized functions.

Selected References SYSY Antibodies

Immunosignals of Oligodendrocyte Markers and Myelin-Associated Proteins Are Critically Affected after Experimental Stroke in Wild-Type and Alzheimer Modeling Mice of Different Ages.
Michalski D, Keck AL, Grosche J, Martens H, Härtig W
Frontiers in cellular neuroscience (2018) 12: 23. **IHC; tested species: mouse**

Selected General References

Molecular evolution of myelin basic protein, an abundant structural myelin component.
Nawaz S, Schweitzer J, Jahn O, Werner HB
Glia (2013) 61(8): 1364-77.

Myelin management by the 18.5-kDa and 21.5-kDa classic myelin basic protein isoforms.
Harauz G, Boggs JM
Journal of neurochemistry (2013) 125(3): 334-61.

Identification of an embryonic isoform of myelin basic protein that is expressed widely in the mouse embryo.
Mathisen PM, Pease S, Garvey J, Hood L, Readhead C
Proceedings of the National Academy of Sciences of the United States of America (1993) 90(21): 10125-9.

Antibody to myelin basic protein in extracts of multiple sclerosis brain.
Bernard CC, Randell VB, Horvath LB, Carnegie PR, Mackay IR
Immunology (1981) 43(3): 447-57.

Amino acid sequence of the smaller basic protein from rat brain myelin.
Dunkley PR, Carnegie PR
The Biochemical journal (1974) 141(1): 243-55.