

## ARG52344 anti-Myelin Basic Protein antibody

Package: 100 µl, 50 µl  
Store at: -20°C

### Summary

|                     |  |
|---------------------|--|
| Product Description | Chicken Polyclonal antibody recognizes Myelin Basic Protein (MBP)                      |
| Tested Reactivity   | Hu, Ms, Rat, Bov   |
| Predict Reactivity  | Mamm   |
| Tested Application  | ICC/IF, IHC-Fr, WB   |
| Host                | Chicken  |
| Clonality           | Polyclonal   |
| Isotype             | IgY  |
| Target Name         | Myelin Basic Protein   |
| Species             | Rat  |
| Immunogen           | Three peptide sequences conserved in higher vertebrate MBP proteins                    |
| Conjugation         | Un-conjugated  |
| Alternate Names     | Myelin A1 protein; MBP; Myelin membrane encephalitogenic protein; Myelin basic protein |

### Application Instructions

| Application table | Application | Dilution |
|-------------------|-------------|----------|
|                   | ICC/IF      | 1:500    |
|                   | IHC-Fr      | 1:500    |
|                   | WB          | 1:1000   |

**Application Note** Specific for the ~18k & 22k myelin basic protein in Western blots of Rat brain homogenate.  
\* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

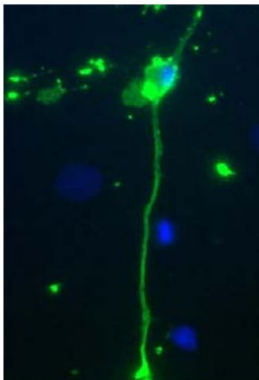
### Properties

|                     |  |
|---------------------|--|
| Form                | Liquid   |
| Purification        | Total IgY fraction   |
| Buffer              | Total IgY fraction in PBS and 5 mM Sodium azide  |
| Preservative        | 5 mM Sodium azide  |
| Storage instruction | For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use. |
| Note                | For laboratory research only, not for drug, diagnostic or other use.   |

## Bioinformation

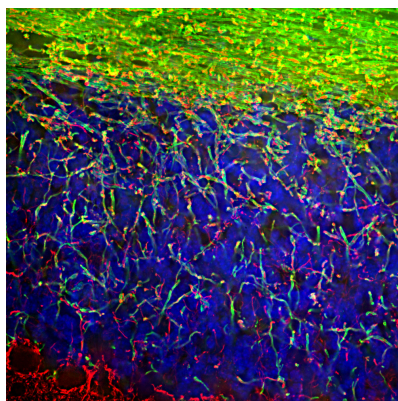
|                |  |
|----------------|--|
| Gene Symbol    | MBP  |
| Gene Full Name | myelin basic protein   |
| Background     | Myelin Basic Protein (MBP) is one of the major proteins of the myelin sheath surrounding axons in the nervous system. Since it is of relatively low molecular weight and high abundance the protein sequence was determined from purified protein over 30 years ago (Eylar et al., 1971). The protein is made by oligodendrocytes in the central nervous system, so antibodies to MBP are good markers of this cell type. However, transcripts from the same gene are also expressed in certain hematopoietic lineage cells (Marty et al., 2002). In the central nervous system there are there different forms of the protein made by alternate transcription from a single gene, which have molecular weights of 21.5, 18.5, and 17.2 kDa. Since the two lower molecular weight forms are very close in molecular size, MBP antibodies typically show two bands on Western blots, one at about 22kDa and another at about 18kDa. |
| Research Area  | Controls and Markers antibody; Neuroscience antibody   |
| Calculated Mw  | 33 kDa   |
| 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. 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.  |

## Images



ARG52344 anti-Myelin Basic Protein (MBP) antibody ICC/IF image

Immunofluorescence: Rat mixed neuron/glia cultures stained with ARG52344 anti-Myelin Basic Protein (MBP) antibody (green). Blue is a DNA stain. Note that the Myelin Basic Protein antibody stains an oligodendrocyte and some membrane shed from this cell. Other cells in the field include neurons, astrocytes, microglia and fibroblasts, all of which are completely negative.

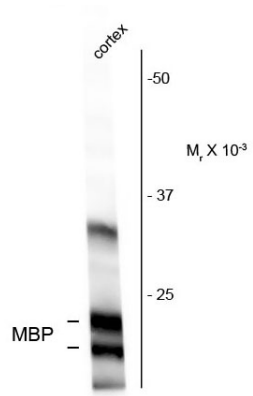


ARG52344 anti-Myelin Basic Protein (MBP) antibody IHC-Fr image

Immunohistochemistry: Frozen section of Rat brain cerebellum tissue stained with ARG52344 anti-Myelin Basic Protein (MBP) antibody (green) at 1:5000 dilution, and co-stained with [ARG10732](#) anti-Neurofilament NF-L antibody (red) at 1:5000 dilution.

The MBP antibody stains oligodendrocytes and myelin sheaths around axons, while the NF-L antibody labels dendrites and axons of neuronal cells.

ARG52344 anti-Myelin Basic Protein (MBP) antibody WB image



Western blot: Rat cortex homogenate showing specific immunolabeling of the ~18 and 22k MBP protein stained with ARG52344 anti-Myelin Basic Protein (MBP) antibody.