Myelin Basic Protein Recombinant Antibody [JF0943] - Chicken IgY (Chimeric)

HA601580

Product Type:	Recombinant Chimeric Antibody, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	IHC-Fr, IF-Tissue
Molecular Wt:	Predicted band size: 33 kDa
Clone number:	JF0943

Description: Myelin basic protein (MBP) is the major extrinsic membrane protein of central nervous system myelin. MBP phosphorylation at Threonine 125 is a complex regulatory process that modulates the contribution of MBP to the stability of the myelin sheath. Mitogen-activated protein kinases modulate MBP phosphorylation during myelinogenesis and in the demyelinating disease multiple sclerosis. MBP phosphorylation is regulated by high-frequency stimulation but not low-frequency stimulation of the alveus, the myelinated output fibers of the hippocampus. It is proposed that during periods of increased neuronal activity, calcium activates axonal nitric oxide synthase, which generates the intercellular messengers nitric oxide and superoxide and regulates the phosphorylation state of MBP by MAPK.

Immunogen: Recombinant protein within Human Myelin Basic Protein aa 121-304 / 304.

Positive control: Human brain tissue, mouse brain tissue, rat brain tissue,

Subcellular location: Myelin membrane, Nucleus.

Database links: SwissProt: P02686 Human | P04370 Mouse | P02688 Rat

Recommended Dilutions:

IHC-Fr	1:200
IF-Tissue	1:500

Storage Buffer: 1*PBS (pH7.4), 0.1% BSA, 40% Glycerol, 0.2% Proclean 950.

Storage Instruction: Shipped at 4℃. Store at +4℃ short term (1-2 weeks). Store at -20℃ long term.

Purity: Protein A affinity purified.

Images

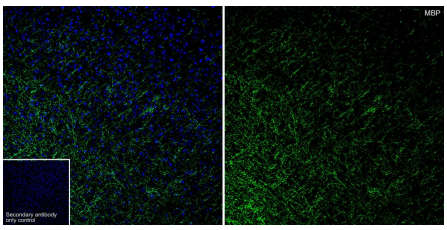

Fig1: Application: Immunofluorescence (IHC-Fr)

Species: Mouse
Tissue: Cerebral cortex
Sample: Frozen section

Antigen retrieval: Not required

Wash buffer: 1× PBST
Blocking: 10% normal goat serum + 0.5 % Triton X-100 + 0.3 M Glycine in PBS, 10 minutes at room temperature.
Primary antibody: HA601580, 1/200, overnight at 4℃.
Secondary antibody: Goat Anti-Chicken IgY (iFluor™ 488, HA1139), 1.5 hours at room temperature.

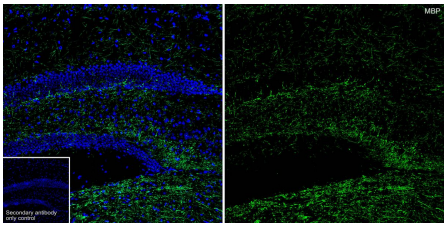

Fig2: Application: Immunofluorescence (IHC-Fr)

Species: Mouse
Tissue: Hippocampus
Sample: Frozen section

Antigen retrieval: Not required

Wash buffer: 1× PBST
Blocking: 10% normal goat serum + 0.5 % Triton X-100 + 0.3 M Glycine in PBS, 10 minutes at room temperature.
Primary antibody: HA601580, 1/200, overnight at 4℃.
Secondary antibody: Goat Anti-Chicken IgY (iFluor™ 488, HA1139), 1.5 hours at room temperature.

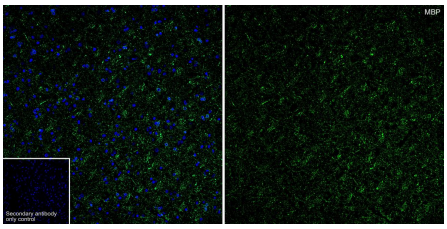

Fig3: Application: Immunofluorescence (IF-tissue)

Species: Human
Tissue: Brain
Sample: Paraffin-embedded section

Antigen retrieval: Heat-mediated, Tris-EDTA buffer (pH 9.0), 20 minutes at 95℃.

Wash buffer: 1× PBST
Endogenous peroxidase blocking: 3% H2O2, 10 minutes.
Blocking: 1% BSA + 10% normal goat serum, 10 minutes at room temperature.
Primary antibody: HA601580, 1/500, overnight at 4℃.
Secondary antibody: Goat Anti-Chicken IgY (iFluor™ 488, HA1139), 1.5 hours at room temperature.

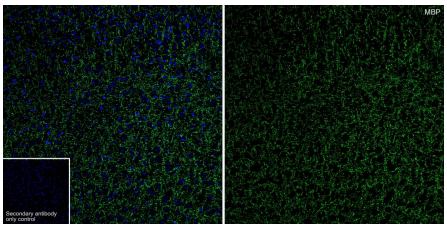

Fig4: Application: Immunofluorescence (IF-tissue)

Species: Mouse
Tissue: Cerebral cortex
Sample: Paraffin-embedded section

Antigen retrieval: Heat-mediated, Tris-EDTA buffer (pH 9.0), 20 minutes at 95℃.

Wash buffer: 1× PBST
Endogenous peroxidase blocking: 3% H2O2, 10 minutes.
Blocking: 1% BSA + 10% normal goat serum, 10 minutes at room temperature.
Primary antibody: HA601580, 1/500, overnight at 4℃.
Secondary antibody: Goat Anti-Chicken IgY (iFluor™ 488, HA1139), 1.5 hours at room temperature.

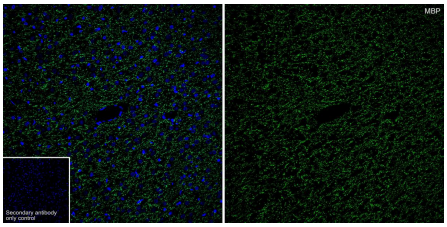

Fig5: Application: Immunofluorescence (IF-tissue)

Species: Rat
Tissue: Cerebral cortex
Sample: Paraffin-embedded section

Antigen retrieval: Heat-mediated, Tris-EDTA buffer (pH 9.0), 20 minutes at 95℃.

Wash buffer: 1× PBST
Endogenous peroxidase blocking: 3% H2O2, 10 minutes.
Blocking: 1% BSA + 10% normal goat serum, 10 minutes at room temperature.
Primary antibody: HA601580, 1/500, overnight at 4℃.
Secondary antibody: Goat Anti-Chicken IgY (iFluor™ 488, HA1139), 1.5 hours at room temperature.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Martinsen V et al. Multiple sclerosis and myelin basic protein: insights into protein disorder and disease. Amino Acids. 2022 Jan
2. Bagheri H et al. Myelin basic protein mRNA levels affect myelin sheath dimensions, architecture, plasticity, and density of resident glial cells. Glia. 2024 Oct