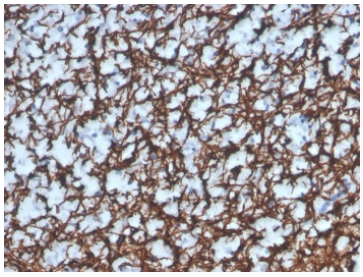
Recombinant Myelin Basic Protein Antibody [clone MBP/4277R] (V8436)

Catalog No.	Formulation	Size
V8436-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V8436-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V8436SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

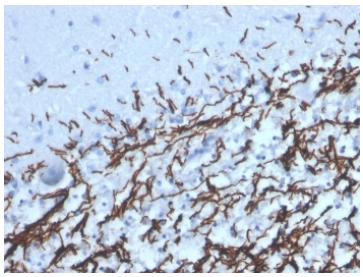
Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	MBP/4277R
Purity	Protein A affinity chromatography
UniProt	P02686
Localization	Cell surface, cytoplasm
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT Western Blot : 2-4ug/ml
Limitations	This recombinant Myelin Basic Protein antibody is available for research use only.



IHC staining of FFPE human brain with recombinant Myelin Basic Protein antibody (clone MBP/4277R). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



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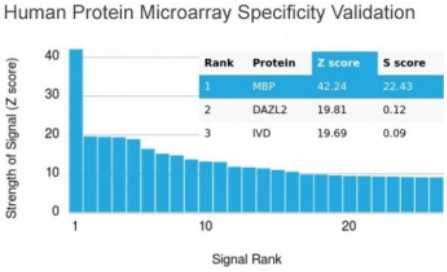
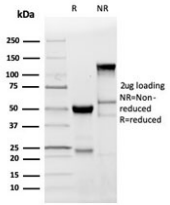
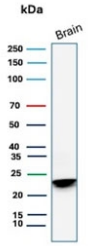


Analysis of HuProt(TM) microarray containing more than 19,000 full-length human proteins using recombinant Myelin Basic Protein antibody (clone MBP/4277R). These results demonstrate the foremost specificity of the MBP/4277R mAb. Z- and S- score: The Z-score represents the strength of a signal that an antibody (in combination with a fluorescently-tagged anti-IgG secondary Ab) produces when binding to a particular protein on the HuProt(TM) array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If the targets on the HuProt(TM) are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-scores. The S-score therefore represents the relative target specificity of an Ab to its intended target.



SDS-PAGE analysis of purified, BSA-free recombinant Myelin Basic Protein antibody (clone MBP/4277R) as confirmation of integrity and purity.



Western blot testing of human brain tissue with recombinant Myelin Basic Protein antibody. Expected molecular weight: 22-37 kDa.

Description

Recombinant Myelin Basic Protein antibody detects myelin basic protein (MBP), a structural component of the myelin sheath encoded by the MBP gene. MBP is critical for the compaction and stability of myelin in the central nervous system. Because MBP is essential for normal nervous system function and is implicated in demyelinating diseases such as multiple sclerosis, Recombinant Myelin Basic Protein antibody is a key reagent in neuroscience and neuroimmunology.

MBP is a highly basic protein localized to the cytoplasmic face of myelin membranes, where it promotes adhesion between adjacent bilayers. Multiple isoforms arise from alternative splicing, with distinct roles in development and disease. MBP maintains myelin structure, organizes signaling complexes, and influences immune recognition. Its small size and abundance make it a dominant autoantigen in experimental autoimmune encephalomyelitis models of multiple sclerosis.

The Recombinant Myelin Basic Protein antibody clone MBP/4277R provides specific and reproducible detection of MBP isoforms. Recombinant production ensures consistency across lots, a critical factor in longitudinal studies. Clone MBP/4277R has been cited in peer-reviewed work on demyelination, remyelination, and oligodendrocyte biology. It is

used in immunohistochemistry, Western blotting, and neuropathological assessments of human and animal tissues.

Research using clone MBP/4277R has clarified how MBP loss or modification disrupts myelin integrity and contributes to neurological disease. In multiple sclerosis, MBP-reactive immune responses promote demyelination, while in traumatic brain and spinal cord injury, MBP release serves as a biomarker of tissue damage. Beyond pathology, MBP detection has supported developmental neuroscience, highlighting its role in oligodendrocyte differentiation and myelin maturation.

NSJ Bioreagents provides this Recombinant Myelin Basic Protein antibody to support research in neuroscience, neuroimmunology, and demyelinating disease. Alternate names include MBP antibody, myelin A1 protein antibody, shiverer protein antibody, classic myelin protein antibody, oligodendrocyte differentiation antigen antibody, and central nervous system myelin protein antibody.

Application Notes

Optimal dilution of the recombinant Myelin Basic Protein antibody should be determined by the researcher.

Immunogen

A portion of amino acids 150-250 from the human protein was used as the immunogen for the recombinant Myelin Basic Protein antibody.

Storage

Store the recombinant Myelin Basic Protein antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).