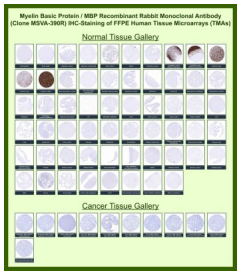
MBP Antibody for IHC / Myelin Basic Protein Immunohistochemistry Antibody [clone MSVA-390R] (V5939)

Catalog No.	Formulation	Size
V5939-100UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	100 ug
V5939-20UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	20 ug

Recombinant RABBIT MONOCLONAL

Bulk quote request

Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	MSVA-390R
UniProt	P02686
Localization	Myelin membrane, Nucleus
Applications	Immunohistochemistry (FFPE) : 1:100-1:200
Limitations	This MBP Antibody for IHC / Myelin Basic Protein Immunohistochemistry Antibody is available for research use only.



MBP Antibody for IHC Tissue Microarray (TMA). Immunohistochemistry analysis of Myelin basic protein MBP in formalin-fixed paraffin-embedded human normal and cancer tissue microarrays using recombinant rabbit monoclonal MBP antibody clone MSVA-390R. Tissue microarray (TMA) staining with HRP-DAB brown chromogen demonstrates strong cytoplasmic and fiber-like localization in central nervous system tissues, including cerebellum and cerebral white matter, highlighting myelinated axonal tracts, while neuronal cell bodies show minimal staining and non-neural tissues such as epithelial, stromal, and lymphoid compartments remain largely negative. Within tumor tissue microarrays, carcinomas and other non-neural malignancies show little to no MBP expression, supporting its restricted localization to myelin-producing cells. Evaluation across large TMA panels enables direct comparison of MBP expression across diverse tissue types under standardized conditions. The observed staining patterns align with reported MBP expression profiles in the Human Protein Atlas and support its use in identifying central nervous system-derived structures.

Description

Myelin Basic Protein (MBP) is a major structural component of the myelin sheath in the central nervous system, where it plays a critical role in myelin compaction, axonal insulation, and maintenance of white matter integrity. MBP Antibody for IHC is optimized for detection of myelin-associated structures in formalin-fixed, paraffin-embedded tissues, enabling detailed visualization of neural architecture and white matter distribution in histological sections.

MBP antibody, also known as Myelin Basic Protein antibody, is widely used in immunohistochemistry as a highly specific marker of oligodendrocyte-derived myelin. MBP is strongly expressed in central nervous system white matter, including cerebellar and cerebral tracts, where it localizes along myelinated axons and highlights fiber-rich regions with distinct morphology. Expression is minimal in gray matter and largely absent in non-neural tissues, supporting its use as a lineage-restricted marker for myelinated structures and central nervous system origin.

Clone MSVA-390R is a recombinant rabbit monoclonal antibody developed for high-affinity and reproducible detection of MBP in FFPE samples. This clone produces strong, well-defined staining of myelinated fibers with low background, allowing clear distinction between white matter and surrounding tissue compartments. In Tissue Microarray (TMA) analysis, MBP Antibody for IHC demonstrates highly consistent staining across multiple neural tissue cores, enabling reliable comparison of myelin distribution and density across samples.

In normal tissue microarrays, MBP expression is prominently detected in white matter regions of the cerebellum and cerebrum, where dense networks of myelinated axons generate strong HRP-DAB brown signal. Gray matter regions show comparatively reduced staining, reflecting lower myelin content. Non-neural tissues including epithelial, glandular, and stromal compartments are largely negative, reinforcing the specificity of MBP as a central nervous system myelin marker and supporting accurate tissue classification in complex samples.

In cancer tissue microarrays, MBP staining is generally absent in non-neural malignancies such as carcinomas and mesenchymal tumors, consistent with its restricted expression profile. This negative staining pattern provides a useful contrast when evaluating tumors of uncertain origin and supports the use of MBP Antibody for IHC in identifying central nervous system-derived lesions or confirming lack of neural differentiation in peripheral tumors.

The robust and reproducible performance of clone MSVA-390R in TMA-based immunohistochemistry supports its application in neuropathology, neurodevelopmental studies, and research on demyelinating diseases such as multiple sclerosis. MBP Antibody for IHC enables consistent visualization of myelin architecture across FFPE tissues and is well suited for comparative tissue analysis, disease modeling, and evaluation of white matter integrity.

This antibody is also part of a broader collection of IHC antibodies validated by tissue microarray analysis, supporting consistent staining across normal and cancer tissues.

Application Notes

1. Optimal dilution of the MBP Antibody for IHC / Myelin Basic Protein Immunohistochemistry Antibody should be determined by the researcher.

2. This recombinant MBP/Myelin basic protein antibody is recombinantly produced by expression in human HEK293 cells.

3. Manual Protocol: Freshly cut sections should be used (less than 10 days between cutting and staining). Heat-induced antigen retrieval for 5 minutes in an autoclave at 121oC in pH 7.8 Target Retrieval Solution buffer. Apply the antibody at a dilution of 1:150 at 37oC for 60 minutes. Visualization of bound antibody by the EnVision Kit (Dako, Agilent) according to the manufacturer's directions.

Immunogen

A recombinant fragment (around amino acids 150-250) of human MBP (exact sequence is proprietary) was used as the immunogen for the recombinant MBP/Myelin basic protein antibody.

Storage

Recombinant MBP/Myelin basic protein antibody with sodium azide - store at 2 to 8oC; antibody without sodium azide - store at -20 to -80oC.

Alternate Names

Myelin Basic Protein IHC antibody, MBP immunohistochemistry antibody, Myelin sheath protein antibody, MBP TMA antibody, Myelin Basic Protein tissue staining antibody