Human MBP Antibody

Monoclonal Mouse IgG_1 Clone # 858901

Catalog Number: MAB42281

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human MBP in direct ELISAs and Western blots.
Source	Monoclonal Mouse IgG_1 Clone # 858901
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant human MBP Gly2-Val133 Accession # P02686
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 μm filtered solution in PBS.

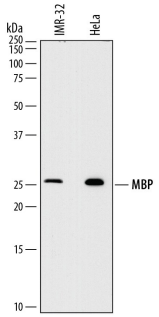
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	0.5 µg/mL	See Below

DATA

Western Blot



Detection of Human MBP by Western Blot. Western blot shows lysates of IMR-32 human neuroblastoma cell line and HeLa human cervical epithelial carcinoma cell line. PVDF membrane was probed with 0.5 µg/mL of Mouse Anti-Human MBP Monoclonal Antibody (Catalog # MAB42281) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for MBP at approximately 25 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Myelin basic protein (MBP) is an abundant protein in the central nervous system. It is produced by oligodendrocytes and binds to cytoskeletal components and negatively charged lipids. These interactions enable MBP to anchor adjacent layers of myelin which oligodendocytes wrap around neuronal axons. Multiple sclerosis (MS) is a demyelinating inflammatory disease which is characterized by MBP with aberrant post-translational modifications, autoimmune reactions that target MBP, and oligodendrocyte apoptosis. Alternative splicing of human MBP generates several isoforms which lack amino acids 1-133, lack aa 240-250, and/or have a 26 aa insertion following Lys192, yielding protein products of 17-33 kDa. Within aa 1-133, human MBP shares 79% aa sequence identity with mouse MBP.