

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects human, mouse, and rat MBP
Source	Monoclonal Mouse IgG ₁ Clone # 932908
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Purified MBP from bovine brain 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.

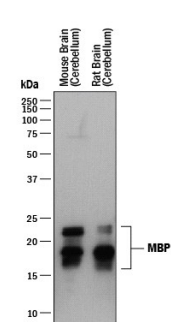
APPLICATIONS

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	0.1 µg/mL	See Below
Immunocytochemistry	8-25 µg/mL	See Below
Immunohistochemistry	0.1-25 µg/mL	See Below

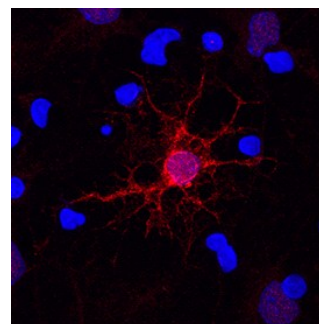
DATA

Western Blot



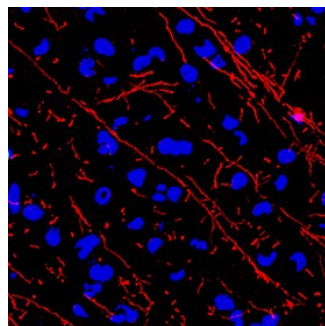
Detection of Mouse and Rat MBP by Western Blot. Western blot shows lysates of mouse brain (cerebellum) tissue and rat brain (cerebellum) tissue. PVDF membrane was probed with 0.1 µg/mL of Mouse Anti-Human/Mouse/Rat MBP Monoclonal Antibody (Catalog # MAB42282) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). Specific bands were detected for MBP at approximately 15-22 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunocytochemistry



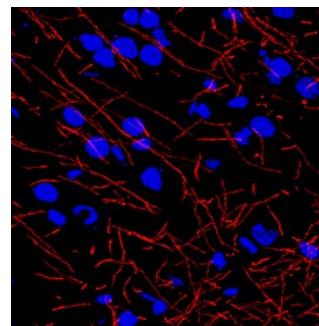
MBP in Rat Cortical Stem Cells. MBP was detected in immersion fixed rat cortical stem cells differentiated for 7 days to oligodendrocytes using Mouse Anti-Human/Mouse/Rat MBP Monoclonal Antibody (Catalog # MAB42282) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cell surfaces, cytoplasm, and nuclei. View our protocol for [Fluorescent ICC Staining of Stem Cells on Coverslips](#).

Immunohistochemistry



MBP in Rat Brain. MBP was detected in perfusion fixed frozen sections of rat brain using Mouse Anti-Human/Mouse/Rat MBP Monoclonal Antibody (Catalog # MAB42282) at 0.1 µg/mL overnight at 4 °C. Tissue was stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to myelinated fibers. View our protocol for [Fluorescent IHC Staining of Frozen Tissue Sections](#).

Immunohistochemistry



MBP in Mouse Brain. MBP was detected in perfusion fixed frozen sections of mouse brain using Mouse Anti-Human/Mouse/Rat MBP Monoclonal Antibody (Catalog # MAB42282) at 0.1 µg/mL overnight at 4 °C. Tissue was stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to myelinated fibers. View our protocol for [Fluorescent IHC Staining of Frozen Tissue Sections](#).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
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. <ul style="list-style-type: none"> ● 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 the most abundant protein component of the myelin membrane in the central nervous system. MBP has a role in both the formation and stabilization of this compact multilayer arrangement of bilayers. *In vitro*, MBP is suitable as a substrate for numerous protein kinases, including the ERK and p38 MAP kinases that phosphorylate MBP at T98.