

DESCRIPTION

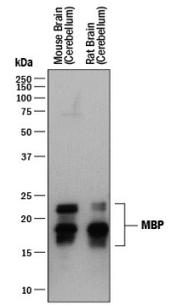
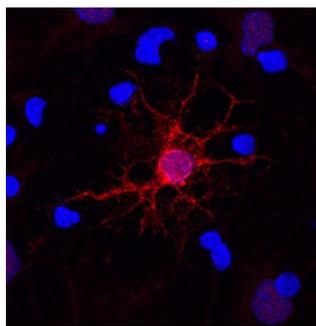
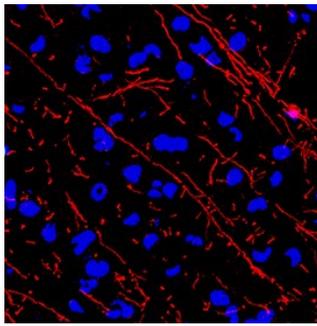
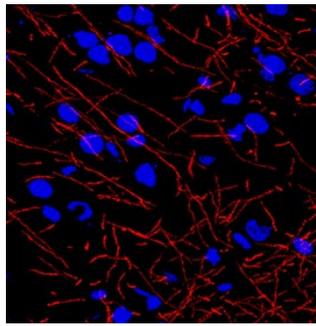
Species Reactivity	Human/Mouse/Rat
Specificity	Detects human, mouse, and rat MBP
Source	Monoclonal Mouse IgG ₁ Clone # 932908
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Purified MBP from bovine brain Accession # P02686
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or 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

<p>Western Blot</p>  <p>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.</p>	<p>Immunocytochemistry</p>  <p>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.</p>
<p>Immunohistochemistry</p>  <p>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.</p>	<p>Immunohistochemistry</p>  <p>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.</p>

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	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <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.