

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human MAP2 in direct ELISAs.
Source	Monoclonal Mouse IgG ₃ Clone # 885232
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human MAP2 Gly1689-Lys1824 Accession # P11137
Formulation	Lyophilized from a 0.2 µm filtered solution in TBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

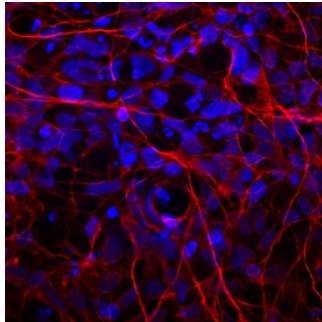
APPLICATIONS

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

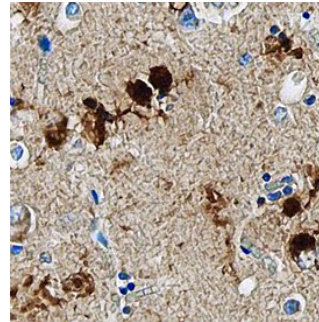
DATA

Immunocytochemistry



MAP2 in Human Embryonic Stem Cells. MAP2 was detected in immersion fixed human embryonic stem cells/neurospheres using Mouse Anti-Human MAP2 Monoclonal Antibody (Catalog # MAB8304) 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. View our protocol for [Fluorescent ICC Staining of Stem Cells on Coverslips](#).

Immunohistochemistry



MAP2 in Human Brain. MAP2 was detected in immersion fixed paraffin-embedded sections of human Alzheimer's brain using Mouse Anti-Human MAP2 Monoclonal Antibody (Catalog # MAB8304) at 15 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). Specific staining was localized to neurofibrillary tangles and plaques. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded 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

MAP2 (Microtubule-associated protein 2) is a 1827 amino acid (aa) cytoskeletal associated protein. Human MAP2 shares 84% and 79% aa identity with mouse and rat MAP2, respectively. Multiple splice forms exist, resulting in 4 distinct isoforms. MAP2 functions in microtubule polymerization and stabilization in both normal and malignant cell types. It has been demonstrated to play a critical role in neurite outgrowth and loss of MAP2 function in neurons may lead to neural degeneration.