

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Plexin B1 in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human (rh) Plexin C1, rhPlexin D1, recombinant mouse (rm) Plexin A1, rmPlexin A2, or rmPlexin A3 is observed.
Source	Monoclonal Mouse IgG ₁ Clone # 439512
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human Plexin B1 Leu35-Val150 Accession # O43157
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.

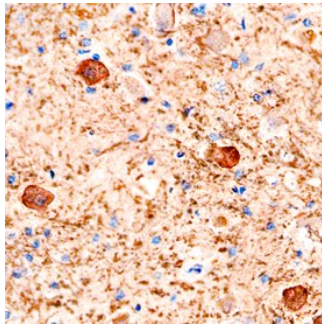
APPLICATIONS

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	1 µg/mL	Recombinant Human Plexin B1
Immunohistochemistry	8-25 µg/mL	See Below

DATA

Immunohistochemistry



Plexin B1 in Human Brain. Plexin B1 was detected in immersion fixed paraffin-embedded sections of human brain using Mouse Anti-Human Plexin B1 Monoclonal Antibody (Catalog # MAB3749) at 15 µg/mL overnight at 4 °C. Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). 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 neuronal cell bodies. 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

Plexin B1 is a 300 kDa member of the B subfamily, Plexin family of Semaphorin receptors. Mature human Plexin B1 is a 2116 amino acid type I transmembrane (TM) glycoprotein that contains a 1471 aa extracellular domain (ECD) and a 612 aa cytoplasmic region. The ECD contains one Semaphorin domain, two PSI domains, and three IPT repeats. The ECD is cleaved into two subunits, a 200 kDa α-chain (aa 20-1305) and a 100 kDa TM β-chain. The subunits are nondisulfide-linked and generate a high-affinity receptor. Plexin B1 is a receptor for Semaphorin 4D/CD100. It forms a receptor complex with Neuropilins, MET, and EGF R2. Multiple splice variants are known. One shows a deletion of aa 689-871. A second shows a 53 aa substitution for aa 677-2135. And a third shows a 53 aa substitution for the 53 aa between aa 677-729. Over aa 35-150, human Plexin B1 is 90% and 97% aa identical to dog and mouse Plexin B1, respectively.