

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Plexin B2 in direct ELISAs and Western blots. In direct ELISAs, no cross-reactivity with recombinant human Plexin A4, B1, B3, C1, D1, or recombinant mouse Plexin A1, A2, or A3 is observed.
Source	Monoclonal Mouse IgG _{2A} Clone # 537237
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant human Plexin B2 Leu20-Arg1160 Accession # O15031
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.

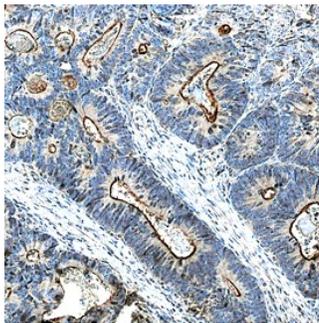
APPLICATIONS

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 B2 under non-reducing conditions only
Immunohistochemistry	8-25 µg/mL	See Below

DATA

Immunohistochemistry



Plexin B2 in Human Colon. Plexin B2 was detected in immersion fixed paraffin-embedded sections of human colon using Mouse Anti-Human Plexin B2 Monoclonal Antibody (Catalog # MAB5329) 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 brush border in epithelial cells. 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 B2 is a 240 kDa member of the B subfamily, plexin family of semaphorin receptors. It is expressed by cerebellar granule cells, neuroepithelium and chondrocytes, and serves as a receptor for Semaphorin 4C. Mature human Plexin B2 is 1819 amino acid (aa) in length. It is a type I transmembrane (TM) glycoprotein that contains an 1178 aa extracellular domain (ECD) plus a 620 aa cytoplasmic region. The ECD contains one semaphorin domain (aa 20-466) and three IPT repeats (aa 803-1092). The ECD may be cleaved into two subunits, a 170 kDa α-chain (aa 20-1164) and an 80 kDa TM β-chain that remain noncovalently-linked. Multiple splice variants may exist. One shows an alternate start site at Met1369, while a second shows a deletion of aa 67-638. Over aa 20-1160, human Plexin B2 is 82% aa identical to mouse Plexin B2.