

plexin-B1 (H-300): sc-25642

BACKGROUND

Plexins are a family of large, transmembrane receptors for multiple classes of semaphorins in vertebrates. Plexins are widely expressed, and regions of their extracellular domain are homologous to both scatter factor receptors and semaphorin domains. Plexins may act as semaphorin receptors alone or in combination with neuropilins. Plexins are divided into four subfamilies designated plexin-A, -B, -C and -D. *Drosophila* plexin A is a receptor for class I semaphorins and controls motor and axon guidance. Plexin A3 mediates cell-repelling cues. Plexins B and C are receptors for Sema 4 and Sema 7, respectively.

REFERENCES

1. Artigiani, S., et al. 1992. Plexins, semaphorins and scatter factor receptors: a common root for cell guidance signals? *IUBMB Life* 48: 477-478.
2. Kolodkin, A.L., et al. 1993. The semaphorin genes encode a family of transmembrane and secreted growth cone guidance molecules. *Cell* 75: 1389-1399.
3. Kameyama, T., et al. 1996. Identification of plexin family molecules in mice. *Biochem. Biophys. Res. Commun.* 226: 396-402.

CHROMOSOMAL LOCATION

Genetic locus: PLXNB1 (human) mapping to 3p21.31; Plxnb1 (mouse) mapping to 9 F2.

SOURCE

plexin-B1 (H-300) is a rabbit polyclonal antibody raised against amino acids 771-1070 of plexin-B1 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

plexin-B1 (H-300) is recommended for detection of plexin-B1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for plexin-B1 siRNA (h): sc-42176, plexin-B1 siRNA (m): sc-42177, plexin-B1 shRNA Plasmid (h): sc-42176-SH, plexin-B1 shRNA Plasmid (m): sc-42177-SH, plexin-B1 shRNA (h) Lentiviral Particles: sc-42176-V and plexin-B1 shRNA (m) Lentiviral Particles: sc-42177-V.

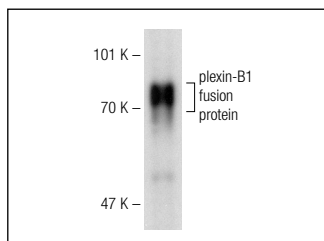
Molecular Weight of plexin-B1: 300/200 kDa.

Positive Controls: Caki-1 cell lysate: sc-2224, KNRK whole cell lysate: sc-2214 or mouse kidney extract: sc-2255.

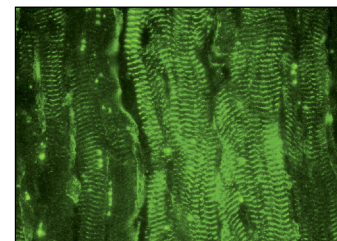
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



plexin-B1 (H-300): sc-25642. Western blot analysis of human recombinant plexin-B1 fusion protein.



plexin-B1 (H-300): sc-25642. Immunofluorescence staining of normal mouse heart frozen section showing membrane staining.

SELECT PRODUCT CITATIONS

1. Giacobini, P., et al. 2008. Semaphorin 4D regulates gonadotropin hormone-releasing hormone-1 neuronal migration through PlexinB1-Met complex. *J. Cell Biol.* 183: 555-566.
2. Argast, G.M., et al. 2009. Plexin B1 is repressed by oncogenic B-Raf signaling and functions as a tumor suppressor in melanoma cells. *Oncogene* 28: 2697-2709.
3. Li, M., et al. 2009. Endogenous CD100 promotes glomerular injury and macrophage recruitment in experimental crescentic glomerulonephritis. *Immunology* 128: 114-122.
4. Soong, J. and Scott, G. 2013. Plexin B1 inhibits MET through direct association and regulates Shp2 expression in melanocytes. *J. Cell Sci.* 126: 688-695.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.