

plexin-B2 (m2): 293T Lysate: sc-122643

BACKGROUND

Plexins are a family of large, transmembrane receptors for multiple classes of semaphorins in vertebrates. They 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. Plexin-B1 and -B2 are both receptors for SEMA4D, which stimulates axonal outgrowth of embryonic dorsal root ganglion neurons. Plexin-B3 binds to SEMA5A, which controls axon guidance and can initiate the intracellular signaling of the hepatocyte growth factor/scatter factor receptor Met.

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.
4. Tamagnone, L., et al. 1997. Control of invasive growth by hepatocyte growth factor (HGF) and related scatter factors. *Cytokine Growth Factor Rev.* 8: 129-142.
5. Winberg, M.L., et al. 1998. Plexin-A is a neuronal semaphorin receptor that controls axon guidance. *Cell* 95: 903-916.
6. Tamagnone, L., et al. 1999. Plexins are a large family of receptors for transmembrane, secreted, and GPI-anchored semaphorins in vertebrates. *Cell* 99: 71-80.
7. Takahashi, T., et al. 1999. Plexin-neuropilin-1 complexes form functional semaphorin-3A receptors. *Cell* 99: 59-69.
8. Masuda, K., et al. 2004. SEMA4D stimulates axonal outgrowth of embryonic DRG sensory neurones. *Genes Cells* 9: 821-829.
9. Artigiani, S., et al. 2004. Plexin-B3 is a functional receptor for semaphorin 5A. *EMBO Rep.* 5: 710-714.

CHROMOSOMAL LOCATION

Genetic locus: Plxn2 (mouse) mapping to 15 E3.

PRODUCT

plexin-B2 (m2): 293T Lysate represents a lysate of mouse plexin-B2 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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

APPLICATIONS

plexin-B2 (m2): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive plexin-B2 antibodies. Recommended use: 10-20 µl per lane.

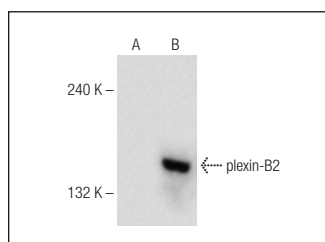
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

plexin-B2 (I-16): sc-34504 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse plexin-B2 expression in plexin-B2 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



plexin-B2 (H-12): sc-373930. Western blot analysis of plexin-B2 expression in non-transfected: sc-117752 (A) and mouse plexin-B2 transfected: sc-122643 (B) 293T whole cell lysates.

RESEARCH USE

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