SANTA CRUZ BIOTECHNOLOGY, INC.

ephrin-B1 (h2): 293T Lysate: sc-116420

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Ephrins, which act as ligands for Eph receptors, are cell-surface proteins which fall into two categories, ephrin-A and ephrin-B based on their structure and function. Ephrin-B proteins are transmembrane and have conserved cytoplasmic tyrosine residues that are phosphorylated upon interaction with an EphB receptor. Eph receptors and ephrins exhibit complementary expression in many tissues during embryogenesis indicating that bidirectional activation of Eph receptors and ephrin-B proteins may occur at expression domain interfaces. Ephrin-B1 transduces outside-in signals through C-terminal protein interactions that effect integrin-mediated cell attachment and migration. The distribution of ephrin-B1 in the developing retina suggests that it influences retinal axon mapping along the dorsal-ventral axis and may be involved in intratectal development.

REFERENCES

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4. Kalo, M.S., et al. 2001. *In vivo* tyrosine phosphorylation sites of activated ephrin-B1 and ephB2 from neural tissue. J. Biol. Chem. 276: 38940-38948.
5. Huynh-Do, U., et al. 2002. Ephrin-B1 transduces signals to activate integrin-mediated migration, attachment, and angiogenesis. J. Cell Sci. 115: 3073-3081.
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7. Xu, Z., et al. 2003. Ephrin-B1 reverse signaling activates JNK through a novel mechanism that is independent of tyrosine phosphorylation. J. Biol. Chem. 278: 24767-24775.
8. Tanaka, M., et al. 2004. Tiam1 mediates neurite outgrowth induced by ephrin-B1 and EphA2. EMBO J. 23: 1075-1088.
9. Twigg, S.R., et al. 2004. Mutations of ephrin-B1 (EFNB1), a marker of tissue boundary formation, cause craniofrontonasal syndrome. Proc. Natl. Acad. Sci. USA 101: 8652-8657.

CHROMOSOMAL LOCATION

Genetic locus: EFNB1 (human) mapping to Xq13.1.

PRODUCT

ephrin-B1 (h2): 293T Lysate represents a lysate of human ephrin-B1 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.

APPLICATIONS

ephrin-B1 (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive ephrin-B1 antibodies. Recommended use: 10-20 µl per lane.

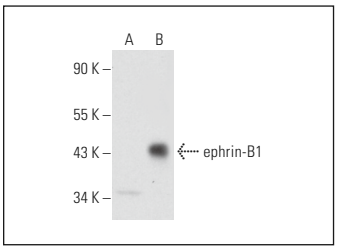
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

ephrin-B1 (C-6): sc-515264 is recommended as a positive control antibody for Western Blot analysis of enhanced human ephrin-B1 expression in ephrin-B1 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



ephrin-B1 (C-6): sc-515264. Western blot analysis of ephrin-B1 expression in non-transfected: sc-117752 (**A**) and human ephrin-B1 transfected: sc-116420 (**B**) 293T whole cell lysates.

RESEARCH USE

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

PROTOCOLS

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