SANTA CRUZ BIOTECHNOLOGY, INC.

EphB1 (Q-20): sc-926

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The Eph subfamily represents the largest group of receptor protein tyrosine kinases identified to date. While the biological activities of these receptors have yet to be determined, there is increasing evidence that they are involved in central nervous system function and in development. The Eph subfamily receptors of human origin (and their murine/avian homologs) include EphA1 (Eph), EphA2 (Eck), EphA3 (Hek4), EphA4 (Hek8), EphA5 (Hek7), EphA6 (Hek12), EphA7 (Hek11/MDK1), EphA8 (Hek3), EphB1 (Hek6), EphB2 (Hek5), EphB3 (Cek10, Hek2), EphB4 (Htk), EphB5 (Hek9) and EphB6 (Mep). Ligands for Eph receptors include ephrin-A4 (LERK-4) which binds EphA3 and EphB1. Ephrin-A2 (ELF-1) has been described as the ligand for EphA4, ephrin-A3 (Ehk1-L) as the ligand for EphA5 and ephrin-B2 (Htk-L) as the ligand for EphB4 (Htk).

REFERENCES

1. Beckmann, M.P., et al. 1994. Molecular characterization of a family of ligands for eph-related tyrosine kinase receptors. EMBO J. 13: 3757-3762.
2. Cheng, H.J., et al. 1994. Identification and cloning of ELF-1, a developmentally expressed ligand for the Mek4 and Sek receptor tyrosine kinases. Cell 79: 157-168.

CHROMOSOMAL LOCATION

Genetic locus: EPHB1 (human) mapping to 3q22.2, EPHB3 (human) mapping to 3q27.1; Ephb1 (mouse) mapping to 9 F1, Ephb3 (mouse) mapping to 16 B1.

SOURCE

EphB1 (Q-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of EphB1 of rat origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-926 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

EphB1 (Q-20) is recommended for detection of EphB1 and EphB3 of mouse, rat, human, and chicken 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).

EphB1 (Q-20) is also recommended for detection of EphB1 and EphB3 in additional species, including equine, canine, bovine, porcine and avian.

Molecular Weight of EphB1: 130 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409, MDA-MB-468 cell lysate: sc-2282 or mouse brain extract: sc-2253.

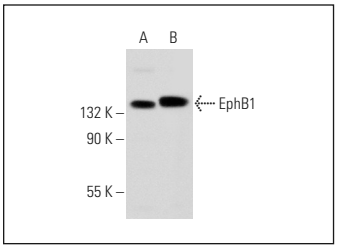
RESEARCH USE

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

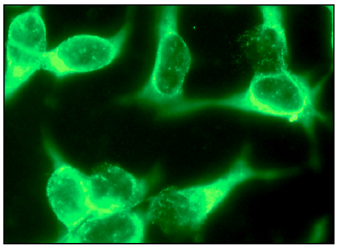
STORAGE

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

DATA



EphB1 (Q-20): sc-926. Western blot analysis of EphB1 expression in IMR-32 (**A**) and MDA-MB-468 (**B**) whole cell lysates.



EphB1 (Q-20): sc-926. Immunofluorescence staining of methanol-fixed SK-N-SH cells showing membrane and cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Daniel, T., et al. 1996. ELK and LERK-2 in developing kidney and microvascular endothelial assembly. Kidney Int. 50: S73-S81.
2. Stein, E., et al. 1998. Nck recruitment to Eph receptor, EphB1/ELK, couples ligand activation to c-Jun kinase. J. Biol. Chem. 273: 1303-1308.
3. Bianchi, L.M., et al. 1998. Distribution of Eph-related molecules in the developing and mature cochlea. Hear. Res. 117: 161-172.
4. Pickles, J.O., et al. 2002. Complementary and layered expression of Ephs and ephrins in developing mouse inner ear. J. Comp. Neurol. 449: 207-216.
5. Williams, S.E., et al. 2003. Ephrin-B2 and EphB1 mediate retinal axon divergence at the optic chiasm. Neuron 39: 919-935.
6. Xia, G., et al. 2005. Up-regulation of EphB4 in mesothelioma and its biological significance. Clin. Cancer Res. 11: 4305-4315.
7. Renné, C., et al. 2005. Autocrine- and paracrine-activated receptor tyrosine kinases in classic Hodgkin lymphoma. Blood 105: 4051-4059.
8. Liu, W.T., et al. 2009. EphB receptor signaling in mouse spinal cord contributes to physical dependence on morphine. FASEB J. 23: 90-98.

PROTOCOLS

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