SANTA CRUZ BIOTECHNOLOGY, INC.

EphB3 (L-19): sc-9318

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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., Cerretti, D.P., Baum, P., VandenBos, T., James, L., Farrah, T., Kozlosky, C., Hollingsworth, T., Shilling, H., Maraskovsky, E., Fletcher, F.A., Lhotak, V., Pawson, T. and Lyman, S.D. 1994. Molecular characterization of a family of ligands for Eph-related tyrosine kinase receptors. EMBO J. 13: 3757-3762.
2. Cheng, H.J. and Flanagan, J.G. 1994. Identification and cloning of ELF-1, a developmentally expressed ligand for the Mek4 and Sek receptor tyrosine kinases. Cell 79: 157-168.
3. Ciossek, T., Millauer, B. and Ullrich, A. 1995. Identification of alternatively spliced mRNAs encoding variants of MDK1, a novel receptor tyrosine kinase expressed in the murine nervous system. Oncogene 10: 97-108.
4. Kozlosky, C.J., Eugene Maraskovsky, E., McGrew, J.T., VandenBos, T., Teepe, M., Lyman, S.D., Srinivasan, S., Fletcher, F.A., Gayle, R.B., III., Cerretti, D.P. and Beckmann, M.P. 1995. Ligands for the receptor tyrosine kinases Hek and Elk: isolation of cDNAs encoding a family of proteins. Oncogene 10: 299-306.
5. Fox, G.M., Holst, P.L., Chute, H.T., Lindberg, R.A., Janssen, A.M., Basu, R. and Welcher, A.A. 1995. DNA cloning and tissue distribution of five human Eph-like receptor protein-tyrosine kinases. Oncogene 10: 897-905.

CHROMOSOMAL LOCATION

Genetic locus: EPHB3 (human) mapping to 3q27.1; Ephb3 (mouse) mapping to 16 B1.

SOURCE

EphB3 (L-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of EphB3 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.

Blocking peptide available for competition studies, sc-9318 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

For research use only, not for use in diagnostic procedures

APPLICATIONS

EphB3 (L-19) is recommended for detection of EphB3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

EphB3 (L-19) is also recommended for detection of EphB3 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for EphB3 siRNA (h): sc-39951, EphB3 siRNA (m): sc-39952, EphB3 shRNA Plasmid (h): sc-39951-SH, EphB3 shRNA Plasmid (m): sc-39952-SH, EphB3 shRNA (h) Lentiviral Particles: sc-39951-V and EphB3 shRNA (m) Lentiviral Particles: sc-39952-V.

Molecular Weight of EphB3: 130 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

SELECT PRODUCT CITATIONS

1. Xia, G., Kumar, S.R., Masood, R., Koss, M., Templeman, C., Quinn, D., Zhu, S., Reddy, R., Krasnoperov, V. and Gill, P.S. 2005. Up-regulation of EphB4 in mesothelioma and its biological significance. Clin. Cancer Res. 11: 4305-4315.

STORAGE

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

PROTOCOLS

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