

EphB2 (C-20): sc-1763

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: EPHB2 (human) mapping to 1p36.12; Ephb2 (mouse) mapping to 4 D3.

SOURCE

EphB2 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of EphB2 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-1763 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

EphB2 (C-20) is recommended for detection of EphB2 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).

EphB2 (C-20) is also recommended for detection of EphB2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for EphB2 siRNA (h): sc-39949, EphB2 siRNA (m): sc-39950, EphB2 shRNA Plasmid (h): sc-39949-SH, EphB2 shRNA Plasmid (m): sc-39950-SH, EphB2 shRNA (h) Lentiviral Particles: sc-39949-V and EphB2 shRNA (m) Lentiviral Particles: sc-39950-V.

Molecular Weight of EphB2: 130 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210.

SELECT PRODUCT CITATIONS

1. Cowan, C.A., et al. 2000. EphB2 guides axons at the midline and is necessary for normal vestibular function. *Neuron* 26: 417-430.
2. Nagashima, K., et al. 2002. Adaptor protein Crk is required for ephrin-B1-induced membrane ruffling and focal complex assembly of human aortic endothelial cells. *Mol. Biol. Cell* 13: 4231-4242.
3. Egawa, M., et al. 2003. Ephrin-B1 is expressed on human luteinizing granulosa cells in corpora lutea of the early luteal phase: the possible involvement of the B class Eph-ephrin system during corpus luteum formation. *J. Clin. Endocrinol. Metab.* 88: 4384-4392.
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5. Hafner, C., et al. 2004. Differential gene expression of Eph receptors and ephrins in benign human tissues and cancers. *Clin. Chem.* 50: 490-499.67. Yuan, Z.L., et al. 2004. Central role of the threonine residue within the p¹ loop of receptor tyrosine kinase in Stat3 constitutive phosphorylation in metastatic cancer cells. *Mol. Cell. Biol.* 24: 9390-9400.
6. Wu, Q., et al. 2004. Expression of EphB2 and EphB4 in breast carcinoma. *J. Pathol. Oncol. Res.* 10: 26-33.
7. Xia, G., et al. 2005. Up-regulation of EphB4 in mesothelioma and its biological significance. *Clin. Cancer Res.* 11: 4305-4315.
8. Wu, Q., et al. 2006. The prognostic impact of EphB2/B4 expression on patients with advanced ovarian carcinoma. *Gynecol. Oncol.* 102: 15-21.
9. Son, M.Y., et al. 2008. Expression profiles of protein tyrosine kinase genes in human embryonic stem cells. *Reproduction* 136: 423-432.
10. Goparaju, C., et al. 2013. Overexpression of EPH receptor B2 in malignant mesothelioma correlates with oncogenic behavior. *J. Thorac. Oncol.* 8: 1203-1211.
11. Wang, S., et al. 2015. Discovery of a small molecule targeting SET-PP2A interaction to overcome Bcr-AblT315I mutation of chronic myeloid leukemia. *Oncotarget* 6: 12128-12140.

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.


 MONOS
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Try **EphB2 (2D12C6): sc-130068** or **EphB2 (48CT12.6.4): sc-130752**, our highly recommended monoclonal alternatives to EphB2 (C-20).