

EphB4 (H-200): sc-5536

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 MEK-4 and Sek receptor tyrosine kinases. *Cell* 79: 157-168.

CHROMOSOMAL LOCATION

Genetic locus: EPHB4 (human) mapping to 7q22.1; Ephb4 (mouse) mapping to 5 G2.

SOURCE

EphB4 (H-200) is a rabbit polyclonal antibody raised against amino acids 201-400 mapping within an extracellular domain of EphB4 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.

APPLICATIONS

EphB4 (H-200) is recommended for detection of EphB4 of mouse, rat and human 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).

EphB4 (H-200) is also recommended for detection of EphB4 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for EphB4 siRNA (h): sc-39953, EphB4 siRNA (m): sc-39954, EphB4 shRNA Plasmid (h): sc-39953-SH, EphB4 shRNA Plasmid (m): sc-39954-SH, EphB4 shRNA (h) Lentiviral Particles: sc-39953-V and EphB4 shRNA (m) Lentiviral Particles: sc-39954-V.

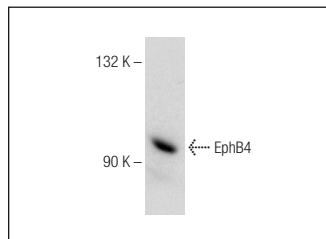
Molecular Weight of EphB4: 120 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, PC-3 cell lysate: sc-2220 or human placenta extract: sc-363772.

STORAGE

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

DATA



EphB4 (H-200): sc-5536. Western blot analysis of EphB4 expression in human placenta tissue extract.

SELECT PRODUCT CITATIONS

1. Stephenson, S.A., et al. 2001. Receptor protein tyrosine kinase EphB4 is up-regulated in colon cancer. *BMC Mol. Biol.* 2: 15.
2. Yuan, Z.L., et al. 2004. Central role of the threonine residue within the p⁺1 loop of receptor tyrosine kinase in Stat3 constitutive phosphorylation in metastatic cancer cells. *Mol. Cell. Biol.* 24: 9390-9400.
3. Lee, Y.C., et al. 2005. Investigation of the expression of the EphB4 receptor tyrosine kinase in prostate carcinoma. *BMC Cancer* 5: 119.
4. Benjamin, D., et al. 2006. BRF1 protein turnover and mRNA decay activity are regulated by protein kinase B at the same phosphorylation sites. *Mol. Cell. Biol.* 26: 9497-9507.
5. Müller-Ehmsen, J., et al. 2006. Role of erythropoietin for angiogenesis and vasculogenesis: from embryonic development through adulthood. *Am. J. Physiol. Heart Circ. Physiol.* 290: H331-H340.
6. Wu, Q., et al. 2006. The prognostic impact of EphB2/B4 expression on patients with advanced ovarian carcinoma. *Gynecol. Oncol.* 102: 15-21.
7. Alam, S.M., et al. 2007. Overexpression of ephrin-B2 and EphB4 in tumor advancement of uterine endometrial cancers. *Ann. Oncol.* 18: 485-490.
8. Diercke, K., et al. 2011. Strain-dependent up-regulation of ephrin-B2 protein in periodontal ligament fibroblasts contributes to osteogenesis during tooth movement. *J. Biol. Chem.* 286: 37651-37664.

RESEARCH USE

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

MONOS
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Try **EphB4 (H-10): sc-365510** or **EphB4 (5G2F8): sc-130081**, our highly recommended monoclonal alternatives to EphB4 (H-200).