

EphB2 (48CT12.6.4): sc-130752

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. In addition, 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.
3. Ciossek, T., et al. 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., et al. 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., et al. 1995. DNA cloning and tissue distribution of five human Eph-like receptor protein-tyrosine kinases. *Oncogene* 10: 897-905.
6. Valenzuela, D.M., et al. 1995. Identification of full length and truncated forms of Ehk-3, a novel member of the Eph receptor tyrosine kinase family. *Oncogene* 10: 1573-1580.
7. Bennett, B.D., et al. 1995. Molecular cloning of a ligand for the Eph-related receptor protein-tyrosine kinase Htk. *Proc. Natl. Acad. Sci. USA* 92: 1866-1870.

CHROMOSOMAL LOCATION

Genetic locus: EPHB2 (human) mapping to 1p36.12.

SOURCE

EphB2 (48CT12.6.4) is a mouse monoclonal antibody raised against His-tagged purified recombinant EphB2 of human origin.

PRODUCT

Each vial contains 100 µg IgG₁ in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

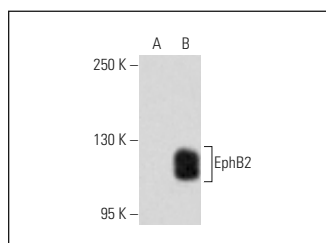
EphB2 (48CT12.6.4) is recommended for detection of EphB2 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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

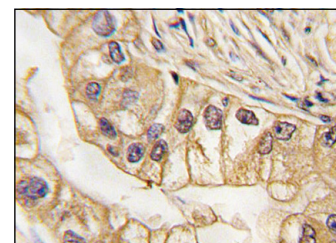
Molecular Weight of EphB2: 130 kDa.

Positive Controls: human EphB2 transfected 293 whole cell lysate.

DATA



EphB2 (48CT12.6.4): sc-130752. Western blot analysis of EphB2 expression in non-transfected (A) and human EphB2 transfected (B) 293 whole cell lysates.



EphB2 (48CT12.6.4): sc-130752. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human lung carcinoma tissue showing membrane localization.

SELECT PRODUCT CITATIONS

1. Goparaju, C., et al. 2013. Overexpression of Eph receptor B2 in malignant mesothelioma correlates with oncogenic behavior. *J. Thorac. Oncol.* 8: 1203-1211.
2. Heng, B.C., et al. 2018. EphrinB2 signaling enhances osteogenic/odontogenic differentiation of human dental pulp stem cells. *Arch. Oral Biol.* 87: 62-71.
3. Lian, H., et al. 2018. Notch signaling promotes serrated neoplasia pathway in colorectal cancer through epigenetic modification of EphB2 and EphB4. *Cancer Manag. Res.* 10: 6129-6141.
4. Dou, X., et al. 2020. Neuroprotective peptide NAPVSIPQ antagonizes ethanol inhibition of L1 adhesion by promoting the dissociation of L1 and ankyrin-G. *Biol. Psychiatry* 87: 656-665.
5. Masaoutis, C., et al. 2021. Ephrin receptors (Ephs) expression in thymic epithelial tumors: prognostic implications and future therapeutic approaches. *Diagnostics* 11: 2265.

RESEARCH USE

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