

# EphB1 (5F10A4): sc-130054

## 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. 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., 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.

## CHROMOSOMAL LOCATION

Genetic locus: EPHB1 (human) mapping to 3q22.2; Ephb1 (mouse) mapping to 9 F1.

## SOURCE

EphB1 (5F10A4) is a mouse monoclonal antibody raised against a recombinant protein corresponding to amino acids 19-133 of EphB1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of 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

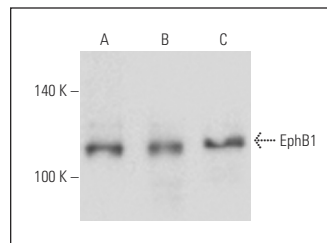
EphB1 (5F10A4) is recommended for detection of EphB1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), 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 EphB1 siRNA (h): sc-39947, EphB1 siRNA (m): sc-39948, EphB1 siRNA (r): sc-72072, EphB1 shRNA Plasmid (h): sc-39947-SH, EphB1 shRNA Plasmid (m): sc-39948-SH, EphB1 shRNA Plasmid (r): sc-72072-SH, EphB1 shRNA (h) Lentiviral Particles: sc-39947-V, EphB1 shRNA (m) Lentiviral Particles: sc-39948-V and EphB1 shRNA (r) Lentiviral Particles: sc-72072-V.

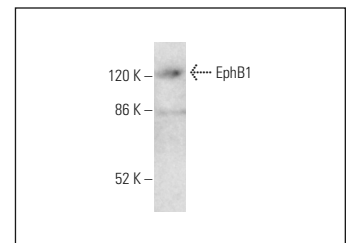
Molecular Weight of EphB1: 130 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206, T-47D cell lysate: sc-2293 or IMR-32 cell lysate: sc-2409.

## DATA



EphB1 (5F10A4): sc-130054. Western blot analysis of EphB1 expression in MDA-MB-453 (A), MCF7 (B) and T-47D (C) whole cell lysates.



EphB1 (5F10A4): sc-130054. Western blot analysis of EphB1 expression in T-47D whole cell lysate. Detection reagent used: m-IgGκ BP-HRP: sc-516102.

## SELECT PRODUCT CITATIONS

1. Masaoutis, C., et al. 2021. Ephrin receptors (Ephs) expression in thymic epithelial tumors: prognostic implications and future therapeutic approaches. *Diagnostics* 11: 2265.
2. Li, R., et al. 2023. Neddylaton of EphB1 regulates its activity and associates with liver fibrosis. *Int. J. Mol. Sci.* 24: 3415.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.