

# EphB3 (7E5): sc-100299

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

## CHROMOSOMAL LOCATION

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

## SOURCE

EphB3 (7E5) is a mouse monoclonal antibody raised against recombinant EphB3 of human origin.

## PRODUCT

Each vial contains 100 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

EphB3 (7E5) 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), 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 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.

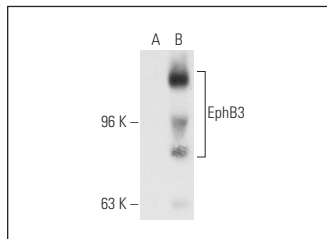
Molecular Weight of EphB3: 130 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, EphB3 (h): 293T Lysate: sc-116104 or EphB3 (m): 293T Lysate: sc-120068.

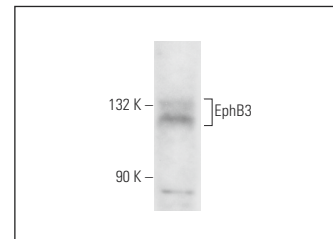
## STORAGE

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

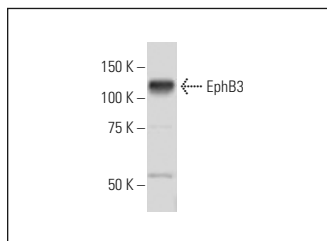
## DATA



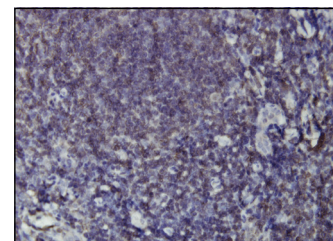
EphB3 (7E5): sc-100299. Western blot analysis of EphB3 expression in non-transfected: sc-117752 (A) and mouse EphB3 transfected: sc-120068 (B) 293T whole cell lysates.



EphB3 (7E5): sc-100299. Western blot analysis of EphB3 expression in HeLa whole cell lysate.



EphB3 (7E5): sc-100299. Western blot analysis of EphB3 expression in HeLa whole cell lysate.



EphB3 (7E5): sc-100299. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human tonsil tissue showing membrane localization.

## SELECT PRODUCT CITATIONS

1. Shimizu, E., et al. 2012. Alendronate affects osteoblast functions by crosstalk through EphrinB1-EphB. *J. Dent. Res.* 91: 268-274.
2. Zhang, H., et al. 2021. RNF186 regulates EFNB1 (ephrin B1)-EphB2-induced autophagy in the colonic epithelial cells for the maintenance of intestinal homeostasis. *Autophagy* 17: 3030-3047.
3. Bourgeois, N.M., et al. 2024. Multiple receptor tyrosine kinases regulate dengue infection of hepatocytes. *Front. Cell. Infect. Microbiol.* 14: 1264525.
4. Liu, X., et al. 2024. NMF typing and machine learning algorithm-based exploration of preeclampsia-related mechanisms on ferroptosis signature genes. *Cell Biol. Toxicol.* 41: 14.

## 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.