

ephrin-B3 (A-7): sc-271328

BACKGROUND

The Eph subfamily represents the largest group of receptor protein kinases identified to date. There is increasing evidence that Eph family members are involved in central nervous system function and in development. Ligands for Eph receptors include ephrin-A1 (LERK-1/B61), identified as a ligand for the EphA2 (Eck) receptor; ephrin-A2 (ELF-1), identified as a ligand for the EphA3 and EphA4 (Sek) receptors; ephrin-A3 (LERK-3), identified as a ligand for EphA5 (Ehk1) and EphA3 (Hek) receptors; ephrin-A4 (LERK-4), identified as a ligand for the EphA3 receptor; ephrin-A5 (AL-1), identified as a ligand for EphA5 (REK7); ephrin-B1 (LERK-2), identified as a ligand for the EphB1 (Elk) and EphB2 (Cek5) receptors; ephrin-B2 (LERK-5), identified as a ligand for the EphB1, EphB3 (Cek10) and EphB2 receptors; and ephrin-B3 (LERK-8), identified as a ligand for EphB1.

REFERENCES

1. Bartley, T.D., et al. 1994. B61 is a ligand for the ECK receptor protein-tyrosine kinase. *Nature* 368: 558-560.
2. Beckmann, M.P., et al. 1994. Molecular characterization of a family of ligands for Eph-related tyrosine kinase receptors. *EMBO J.* 13: 3757-3762.
3. 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: EFNB3 (human) mapping to 17p13.1; Efnb3 (mouse) mapping to 11 B3.

SOURCE

ephrin-B3 (A-7) is a mouse monoclonal antibody raised against amino acids 141-310 mapping near the C-terminus of ephrin-B3 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

ephrin-B3 (A-7) is recommended for detection of ephrin-B3 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for ephrin-B3 siRNA (h): sc-39440, ephrin-B3 siRNA (m): sc-39441, ephrin-B3 shRNA Plasmid (h): sc-39440-SH, ephrin-B3 shRNA Plasmid (m): sc-39441-SH, ephrin-B3 shRNA (h) Lentiviral Particles: sc-39440-V and ephrin-B3 shRNA (m) Lentiviral Particles: sc-39441-V.

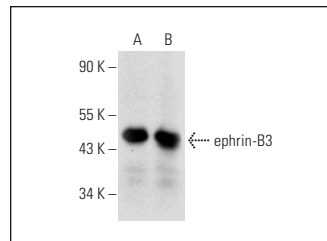
Molecular Weight of ephrin-B3: 40-43 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, Caki-1 cell lysate: sc-2224 or U-87 MG cell lysate: sc-2411.

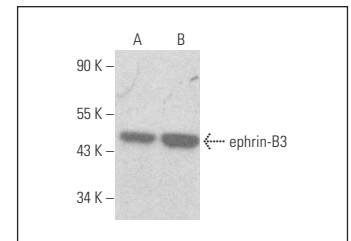
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



ephrin-B3 (A-7): sc-271328. Western blot analysis of ephrin-B3 expression in U-87 MG (A) and Caki-1 (B) whole cell lysates.



ephrin-B3 (A-7): sc-271328. Western blot analysis of ephrin-B3 expression in A-431 (A) and U-251-MG (B) whole cell lysates.

SELECT PRODUCT CITATIONS

1. McBride, T.D., et al. 2016. RNA sequence analyses of r-Moj-DM treated cells: TXNIP is required to induce apoptosis of SK-Mel-28. *Toxicol* 121: 1-9.
2. Liu, T.T., et al. 2018. Ephrin-B3 modulates hippocampal neurogenesis and the reelin signaling pathway in a pilocarpine-induced model of epilepsy. *Int. J. Mol. Med.* 41: 3457-3467.
3. Garcia-Diaz, B., et al. 2019. Blood vessels guide Schwann cell migration in the adult demyelinated CNS through Eph/ephrin signaling. *Acta Neuropathol.* 138: 457-476.

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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.