SANTA CRUZ BIOTECHNOLOGY, INC.

ephrin-B3 (D-11): sc-390696

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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.
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.

CHROMOSOMAL LOCATION

Genetic locus: EFNB3 (human) mapping to 17p13.1; Efnb3 (mouse) mapping to 11 B3.

SOURCE

ephrin-B3 (D-11) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 2-21 of ephrin-B3 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ephrin-B3 (D-11) is available conjugated to agarose (sc-390696 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-390696 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390696 PE), fluorescein (sc-390696 FITC), Alexa Fluor® 488 (sc-390696 AF488), Alexa Fluor® 546 (sc-390696 AF546), Alexa Fluor® 594 (sc-390696 AF594) or Alexa Fluor® 647 (sc-390696 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390696 AF680) or Alexa Fluor® 790 (sc-390696 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-390696 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

ephrin-B3 (D-11) 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.

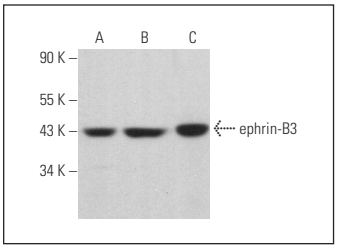
Molecular Weight of ephrin-B3: 40-43 kDa.

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

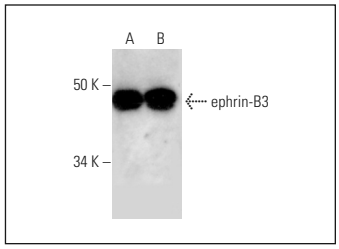
RECOMMENDED SUPPORT REAGENTS

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 (D-11): sc-390696. Western blot analysis of ephrin-B3 expression in A-431 (**A**) and U-251-MG (**B**) whole cell lysates and human brain tissue extract (**C**).



ephrin-B3 (D-11): sc-390696. Western blot analysis of ephrin-B3 expression in U-87 MG (**A**) and Caki-1 (**B**) whole cell lysates.

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.