SANTA CRUZ BIOTECHNOLOGY, INC.

EphB3 (A-12): sc-514139

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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.

CHROMOSOMAL LOCATION

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

SOURCE

EphB3 (A-12) is a mouse monoclonal antibody raised against amino acids 266-350 mapping within an N-terminal extracellular domain of EphB3 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

EphB3 (A-12) is available conjugated to agarose (sc-514139 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-514139 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514139 PE), fluorescein (sc-514139 FITC), Alexa Fluor® 488 (sc-514139 AF488), Alexa Fluor® 546 (sc-514139 AF546), Alexa Fluor® 594 (sc-514139 AF594) or Alexa Fluor® 647 (sc-514139 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514139 AF680) or Alexa Fluor® 790 (sc-514139 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

EphB3 (A-12) is recommended for detection of EphB3 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 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.

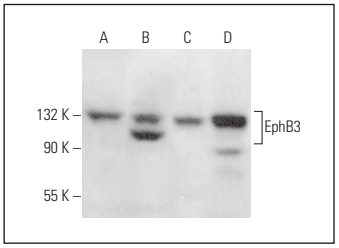
Molecular Weight of EphB3: 130 kDa.

Positive Controls: EphB3 (h): 293T Lysate: sc-116104, COLO 205 whole cell lysate: sc-364177 or T-47D cell lysate: sc-2293.

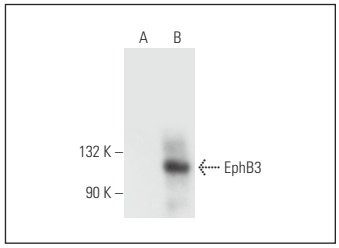
RECOMMENDED SUPPORT REAGENTS

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



EphB3 (A-12): sc-514139. Western blot analysis of EphB3 expression in COLO 205 (**A**), T-47D (**B**), F9 (**C**) and Sol8 (**D**) whole cell lysates.



EphB3 (A-12): sc-514139. Western blot analysis of EphB3 expression in non-transfected: sc-117752 (**A**) and human EphB3 transfected: sc-116104 (**B**) 293T 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.