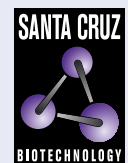


EphA3 (D-2): sc-514209



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.

CHROMOSOMAL LOCATION

Genetic locus: EPHA3 (human) mapping to 3p11.1; EphA3 (mouse) mapping to 16 C1.3.

SOURCE

EphA3 (D-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 31-54 at the N-terminus of EphA3 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.

EphA3 (D-2) is available conjugated to agarose (sc-514209 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514209 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514209 PE), fluorescein (sc-514209 FITC), Alexa Fluor® 488 (sc-514209 AF488), Alexa Fluor® 546 (sc-514209 AF546), Alexa Fluor® 594 (sc-514209 AF594) or Alexa Fluor® 647 (sc-514209 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514209 AF680) or Alexa Fluor® 790 (sc-514209 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-514209 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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STORAGE

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

APPLICATIONS

EphA3 (D-2) is recommended for detection of EphA3 of mouse, rat, human and chicken 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 EphA3 siRNA (h): sc-39934, EphA3 siRNA (m): sc-39935, EphA3 shRNA Plasmid (h): sc-39934-SH, EphA3 shRNA Plasmid (m): sc-39935-SH, EphA3 shRNA (h) Lentiviral Particles: sc-39934-V and EphA3 shRNA (m) Lentiviral Particles: sc-39935-V.

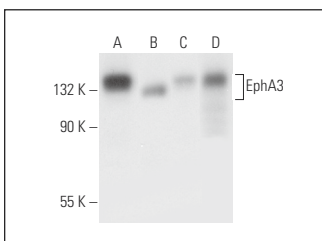
Molecular Weight of EphA3: 135 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, Y79 cell lysate: sc-2240 or HeLa whole cell lysate: sc-2200.

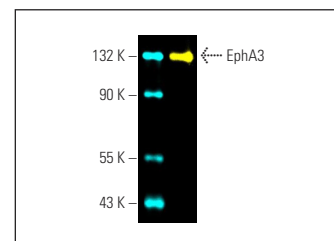
RECOMMENDED SUPPORT REAGENTS

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



EphA3 (D-2): sc-514209. Western blot analysis of EphA3 expression in Jurkat (A), Y79 (B) and HeLa (C) whole cell lysates and human spleen tissue extract (D).



EphA3 (D-2) Alexa Fluor® 488: sc-514209 AF488. Direct fluorescent western blot analysis of EphA3 expression in human brain tissue extract. Blocked with UltraCruz® Blocking Reagent: sc-516214. Cruz Marker™ Molecular Weight Standards detected with Cruz Marker MW Tag-Alexa Fluor® 647: sc-516791.

SELECT PRODUCT CITATIONS

1. Chen, X., et al. 2019. EphA3 inhibits migration and invasion of esophageal cancer cells by activating the mesenchymal-epithelial transition process. *Int. J. Oncol.* 54: 722-732.
2. See, K., et al. 2019. Lineage-specific reorganization of nuclear peripheral heterochromatin and H3K9me2 domains. *Development* 146: dev174078.

RESEARCH USE

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