

EphA3 (4-RE49): sc-134330

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. 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.
6. Valenzuela, D.M., et al. 1995. Identification of full length and truncated forms of Ehk3, a novel member of the Eph receptor tyrosine kinase family. *Oncogene* 10: 1573-1580.
7. Bennett, B.D., et al. 1995. Molecular cloning of a ligand for the Eph-related receptor protein-tyrosine kinase Htk. *Proc. Natl. Acad. Sci. USA* 92: 1866-1870.

CHROMOSOMAL LOCATION

Genetic locus: EPHA3 (human) mapping to 3p11.1.

SOURCE

EphA3 (4-RE49) is a mouse monoclonal antibody raised against recombinant EphA3 protein of human origin.

PRODUCT

Each vial contains 100 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

EphA3 (4-RE49) is recommended for detection of EphA3 of 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)] 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 shRNA Plasmid (h): sc-39934-SH and EphA3 shRNA (h) Lentiviral Particles: sc-39934-V.

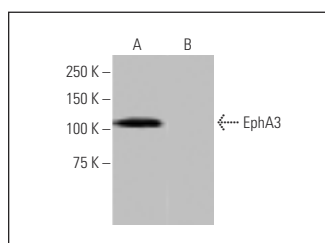
Molecular Weight of EphA3: 135 kDa.

Positive Controls: Y79 cell lysate: sc-2240, JM1 whole cell lysate: sc-364233 or Jurkat whole cell lysate: sc-2204.

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).

DATA



EphA3 (4-RE49): sc-134330. Western blot analysis of EphA3 expression in human EphA3 transfected (A) and non-transfected (B) 293T whole cell lysates.

PROTOCOLS

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