

ephrin-A1 (B-12): sc-377165

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.
5. Bergemann, A.D., et al. 1995. ELF-2, a new member of the Eph ligand family, is segmentally expressed in mouse embryos in the region of the hindbrain and newly forming somites. *Mol. Cell. Biol.* 15: 4921-4929.
6. Winslow, J.W., et al. 1995. Cloning of AL-1, a ligand for an Eph-related tyrosine kinase receptor involved in axon bundle formation. *Neuron* 14: 973-981.
7. Gale, N.W., et al. 1996. Elk-LE, a novel transmembrane ligand for the Eph family of receptor tyrosine kinases, expressed in embryonic floor plate, roof plate and hindbrain segments. *Oncogene* 13: 1343-1352.

CHROMOSOMAL LOCATION

Genetic locus: EFNA1 (human) mapping to 1q22.

SOURCE

ephrin-A1 (B-12) is a mouse monoclonal antibody raised against amino acids 146-205 mapping at the C-terminus of ephrin-A1 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.

STORAGE

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

APPLICATIONS

ephrin-A1 (B-12) is recommended for detection of ephrin-A1 of 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-A1 siRNA (h): sc-39426, ephrin-A1 shRNA Plasmid (h): sc-39426-SH and ephrin-A1 shRNA (h) Lentiviral Particles: sc-39426-V.

Molecular Weight of ephrin-A1 isoform 1: 24 kDa.

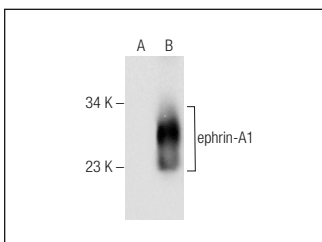
Molecular Weight of ephrin-A1 isoform 2: 21 kDa.

Positive Controls: ephrin-A1 (h): 293T Lysate: sc-111528 or THP-1 cell lysate: sc-2238.

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-A1 (B-12): sc-377165. Western blot analysis of ephrin-A1 expression in non-transfected: sc-117752 (A) and human ephrin-A1 transfected: sc-111528 (B) 293T whole cell lysates.

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.