

# ephrin-A2 (L-20): sc-912

## 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.

## CHROMOSOMAL LOCATION

Genetic locus: EFNA2 (human) mapping to 19p13.3; Efna2 (mouse) mapping to 10 C1.

## SOURCE

ephrin-A2 (L-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of ephrin-A2 of mouse origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-912 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

ephrin-A2 (L-20) is recommended for detection of ephrin-A2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

ephrin-A2 (L-20) is also recommended for detection of ephrin-A2 in additional species, including bovine and porcine.

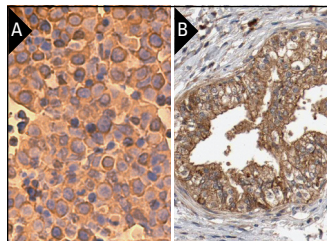
Suitable for use as control antibody for ephrin-A2 siRNA (h): sc-39428, ephrin-A2 siRNA (m): sc-39429, ephrin-A2 shRNA Plasmid (h): sc-39428-SH, ephrin-A2 shRNA Plasmid (m): sc-39429-SH, ephrin-A2 shRNA (h) Lentiviral Particles: sc-39428-V and ephrin-A2 shRNA (m) Lentiviral Particles: sc-39429-V.

Positive Controls: mouse embryo extract: sc-364239.

## STORAGE

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

## DATA



ephrin-A2 (L-20): sc-912. Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse embryo tissue showing membrane cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human epididymis tissue showing membrane staining of glandular cells. Kindly provided by The Swedish Human Protein Atlas (HPA) program (B).

## SELECT PRODUCT CITATIONS

1. Bianchi, L.M. and Gale, N.W. 1998. Distribution of Eph-related molecules in the developing and mature cochlea. *Hear Res.* 117: 161-172.
2. Davenport, R., et al. 1998. Cellular localization of ephrin-A2, ephrin-A5, and other functional cues underlies retinotopic development across species. *J. Neurosci.* 18: 975-986.
3. Symonds, A., et al. 2001. Reinnervation of the superior colliculus delays downregulation of ephrin-A2 in neonatal rat. *Exp. Neurol.* 170: 364-370.
4. Rodger, J., et al. 2001. Expression of ephrin-A2 in the superior colliculus and EphA5 in the retina following optic nerve section in adult rat. *Eur. J. Neurosci.* 14: 1929-1936.
5. Brantley, D.M., et al. 2002. Soluble Eph A receptors inhibit tumor angiogenesis and progression *in vivo*. *Oncogene* 21: 7011-7026.
6. Bach, H., et al. 2003. Persistence of graded EphA/Ephrin-A expression in the adult frog visual system. *J. Comp. Neurol.* 467: 549-565.
7. King, C.E., et al. 2003. Transient upregulation of retinal EphA3 and EphA5, but not ephrin-A2, coincides with re-establishment of a topographic map during optic nerve regeneration in goldfish. *Exp. Neurol.* 183: 593-599.
8. Demyanenko, G.P. and Maness, P.F. 2003. The L1 cell adhesion molecule is essential for topographic mapping of retinal axons. *J. Neurosci.* 23: 530-538.
9. Nie, D., et al. 2010. Tsc2-Rheb signaling regulates EphA-mediated axon guidance. *Nat. Neurosci.* 13: 163-172.
10. Ortalli, A.L., et al. 2012. EphA3 expressed in the chicken tectum stimulates nasal retinal ganglion cell axon growth and is required for retinotectal topographic map formation. *PLoS ONE* 7: e38566.

## RESEARCH USE

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