

EphA3 (L-18): sc-920

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 EphrinA4 (LERK-4) which binds EphA3 and EphB1. EphrinA2 (ELF-1) has been described as the ligand for EphA4, EphrinA3 (Ehk1-L) as the ligand for EphA5 and EphrinB2 (Htk-L) as the ligand for EphB4 (Htk).

CHROMOSOMAL LOCATION

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

SOURCE

EphA3 (L-18) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the N-terminus of EphA3 of human 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-920 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

EphA3 (L-18) is recommended for detection of EphA3 of mouse, rat, human and chicken 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)], 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).

EphA3 (L-18) is also recommended for detection of EphA3 in additional species, including equine, canine, bovine, porcine and avian.

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: Y79 cell lysate: sc-2240, JM1 whole cell lysate: sc-364233 or human kidney extract: sc-363764.

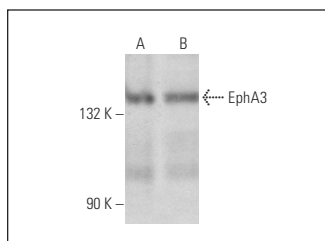
STORAGE

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

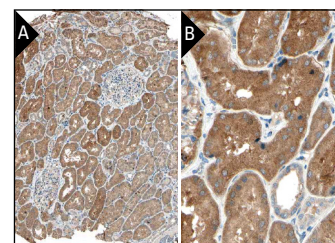
RESEARCH USE

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

DATA



EphA3 (L-18): sc-920. Western blot analysis of EphA3 expression in JM1 (A) and Y79 (B) whole cell lysates.



EphA3 (L-18): sc-920. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining of cells in glomeruli and tubuli at low (A) and high (B) magnification. Kindly provided by The Swedish Human Protein Atlas (HPA) program.

SELECT PRODUCT CITATIONS

1. Yamagata, M., et al. 1999. Regulatory interrelations among topographic molecules CBF1, CBF2 and EphA3 in the developing chick retina. *Dev. Growth Differ.* 41: 575-587.
2. Stubbs, J., et al. 2000. Graded expression of EphA3 in the retina and ephrin-A2 in the superior colliculus during initial development of coarse topography in the wallaby retinocollicular projection. *Eur. J. Neurosci.* 12: 3626-3636.
3. King, C.E., et al. 2003. Transient upregulation of retinal EphA3 and EphA5, but not ephrin-A2, coincides with reestablishment of a topographic map during optic nerve regeneration in goldfish. *Exp. Neurol.* 183: 593-599.
4. Mosch, B., et al. 2012. Irradiation affects cellular properties and Eph receptor expression in human melanoma cells. *Cell Adh. Migr.* 6: 113-125.
5. 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.
6. Chiappalupi, S., et al. 2014. Defective RAGE activity in embryonal rhabdomyosarcoma cells results in high PAX7 levels that sustain migration and invasiveness. *Carcinogenesis* 35: 2382-2392.

PROTOCOLS

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