EphA3 (C-19): sc-919

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BIOTECHNOLOGY

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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).

CHROMOSOMAL LOCATION

Genetic locus: EPHA3 (human) mapping to 3p11.1; Epha3 (mouse) mapping to 16 C1.3.

SOURCE

EphA3 (C-19) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-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-919 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

EphA3 (C-19) 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

EphA3 (C-19) is also recommended for detection of EphA3 in additional species, including equine, canine, bovine and porcine.

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.
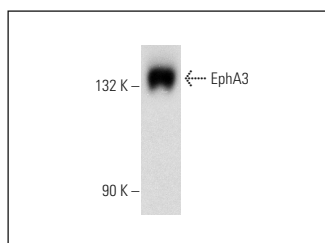
Positive Controls: Jurkat whole cell lysate: sc-2204.

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 (C-19): sc-919. Western blot analysis of EphA3 expression in Jurkat whole cell lysate.

SELECT PRODUCT CITATIONS

1. 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.

2. Yuan, Z.L., et al. 2004. Central role of the threonine residue within the p+1 loop of receptor tyrosine kinase in Stat3 constitutive phosphorylation in metastatic cancer cells. Mol. Cell. Biol. 24: 9390-9400.

3. Sobel, R.A., et al. 2005. Ephrin-A receptors and ligands in lesions and normal-appearing white matter in multiple sclerosis. Brain Pathol. 15: 35-45.

4. Kudo, C., et al. 2005. Expression profiles of EphA3 at both the RNA and protein level in the developing mammalian forebrain. J. Comp. Neurol. 487: 255-269.

5. Ajioka, I. and Nakajima, K. 2005. Switching of α-catenin from αE-catenin in the cortical ventricular zone to αN-catenin II in the intermediate zone. Brain Res. Dev. Brain Res. 160: 106-111.

6. Ajioka, I. and Nakajima, K. 2005. Birth-date-dependent segregation of the mouse cerebral cortical neurons in reaggregation cultures. Eur. J. Neurosci. 22: 331-342.

7. Cruz-Orengo, L., et al. 2006. Blocking EphA4 upregulation after spinal cord injury results in enhanced chronic pain. Exp. Neurol. 202: 421-433.

8. Otal, R., et al. 2006. Ephrin-A5 modulates the topographic mapping and connectivity of commissural axons in murine hippocampus. Neuroscience 141: 109-121.

9. Wang, L., et al. 2011. Anatomical coupling of sensory and motor nerve trajectory via axon tracking. Neuron 71: 263-277.

MONOS
Satisfaction Guaranteed

Try **EphA3 (D-2): sc-514209** or **EphA3 (4-RE49): sc-134330**, our highly recommended monoclonal alternatives to EphA3 (C-19).