

# ephrin-A5 (RR-7): sc-81945

## 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 MEK-4 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: EFNA5 (human) mapping to 5q21.3; Efna5 (mouse) mapping to 17 E1.1.

## SOURCE

ephrin-A5 (RR-7) is a mouse monoclonal antibody raised against recombinant ephrin-A5 of human origin.

## PRODUCT

Each vial contains 100 µg IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## RESEARCH USE

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

## APPLICATIONS

ephrin-A5 (RR-7) is recommended for detection of ephrin-A5 of mouse, rat and 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 ephrin-A5 siRNA (h): sc-39434, ephrin-A5 siRNA (m): sc-39435, ephrin-A5 shRNA Plasmid (h): sc-39434-SH, ephrin-A5 shRNA Plasmid (m): sc-39435-SH, ephrin-A5 shRNA (h) Lentiviral Particles: sc-39434-V and ephrin-A5 shRNA (m) Lentiviral Particles: sc-39435-V.

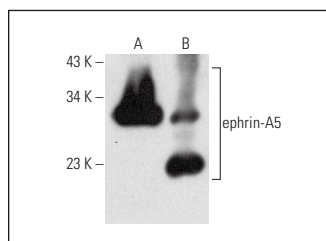
Molecular Weight of ephrin-A5: 26 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, rat eye extract: sc-364805 or mouse eye extract: sc-364241.

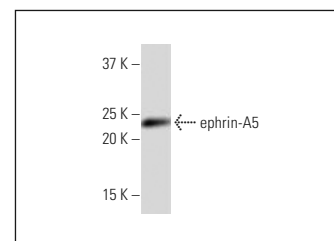
## RECOMMENDED SUPPORT REAGENTS

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



ephrin-A5 (RR-7): sc-81945. Western blot analysis of ephrin-A5 expression in mouse eye (A) and rat eye (B) tissue extracts.



ephrin-A5 (RR-7): sc-81945. Western blot analysis of ephrin-A5 expression in NIH/3T3 whole cell lysate.

## SELECT PRODUCT CITATIONS

1. Ferluga, S., et al. 2016. Simultaneous targeting of Eph receptors in glioblastoma. *Oncotarget* 7: 59860-59876.
2. Sullivan, C.S., et al. 2020. Developmental regulation of basket interneuron synapses and behavior through NCAM in mouse prefrontal cortex. *Cereb. Cortex* 30: 4689-4707.
3. Zhang, L., et al. 2023. Overexpression of LINC00607 inhibits cell growth and aggressiveness by regulating the miR-1289/EFNA5 axis in non-small-cell lung cancer. *Open Med.* 18: 20230649.

## STORAGE

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