

EphA7 (h2): 293T Lysate: sc-158479

BACKGROUND

The Eph subfamily represents the largest group of receptor protein tyrosine kinases identified to date. 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). EphAs are a family of receptor tyrosine kinases that are involved in axonal guidance during development. These receptors and their ligands, the ephrins, act via repulsive mechanisms to guide growing axons towards their appropriate targets and allow for the correct developmental connections to be made. Ligand binding to an Eph receptor results in tyrosine phosphorylation of the kinase domain, and repulsion of axonal growth cones and migrating cells. During neurulation, ephrin-A5 is coexpressed with its cognate receptor EphA7 in cells at the edges of the dorsal neural folds. Three different EphA7 splice variants, a full-length form and two truncated versions lacking kinase domains, are expressed in the neural folds.

REFERENCES

- Ciossek, T., et al. 1995. Identification of alternatively spliced mRNAs encoding variants of MDK1, a novel receptor tyrosine kinase expressed in the murine nervous system. *Oncogene* 10: 97-108.
- Fox, G.M., et al. 1995. DNA cloning and tissue distribution of five human Eph-like receptor protein-tyrosine kinases. *Oncogene* 10: 897-905.
- Valenzuela, D.M., et al. 1995. Identification of full-length and truncated forms of Etk-3, a novel member of the Eph receptor tyrosine kinase family. *Oncogene* 10: 1573-1580.
- Holmberg, J., et al. 2000. Regulation of repulsion versus adhesion by different splice forms of an Eph receptor. *Nature* 408: 203-206.
- Online Mendelian Inheritance in Man, OMIM™. 2000. Johns Hopkins University, Baltimore, MD. MIM Number: 602190. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Willson, C.A., et al. 2002. Upregulation of EphA receptor expression in the injured adult rat spinal cord. *Cell Transplant.* 11: 229-239.

CHROMOSOMAL LOCATION

Genetic locus: EPHA7 (human) mapping to 6q16.1.

PRODUCT

EphA7 (h2): 293T Lysate represents a lysate of human EphA7 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

EphA7 (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive EphA7 antibodies. Recommended use: 10-20 µl per lane.

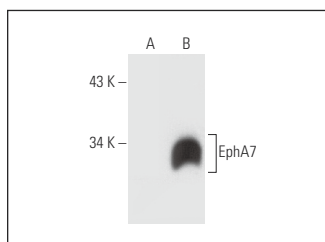
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

EphA7 (E-7): sc-393973 is recommended as a positive control antibody for Western Blot analysis of enhanced human EphA7 expression in EphA7 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

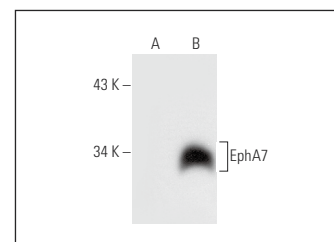
RECOMMENDED SUPPORT REAGENTS

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.

DATA



EphA7 (E-7): sc-393973. Western blot analysis of EphA7 expression in non-transfected: sc-117752 (A) and human EphA7 transfected: sc-158479 (B) 293T whole cell lysates.



EphA7 (F-10): sc-393974. Western blot analysis of EphA7 expression in non-transfected: sc-117752 (A) and human EphA7 transfected: sc-158479 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

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.