

EphA1 (G-18): sc-925

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. 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: EPHA1 (human) mapping to 7q34; Epha1 (mouse) mapping to 6 B2.1.

SOURCE

EphA1 (G-18) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of EphA1 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-925 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

EphA1 (G-18) is recommended for detection of EphA1 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)], 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).

EphA1 (G-18) is also recommended for detection of EphA1 in additional species, including canine, bovine, porcine and avian.

Suitable for use as control antibody for EphA1 siRNA (h): sc-35318, EphA1 siRNA (m): sc-35319, EphA1 shRNA Plasmid (h): sc-35318-SH, EphA1 shRNA Plasmid (m): sc-35319-SH, EphA1 shRNA (h) Lentiviral Particles: sc-35318-V and EphA1 shRNA (m) Lentiviral Particles: sc-35319-V.

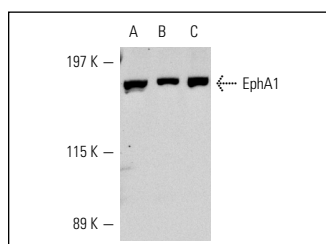
Molecular Weight of EphA1: 180 kDa.

Positive Controls: T-47D cell lysate: sc-2293, SW480 cell lysate: sc-2219 or A549 cell lysate: sc-2413.

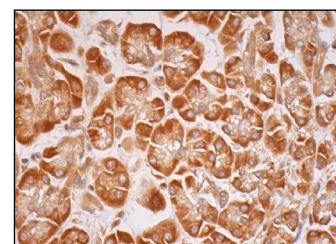
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



EphA1 (G-18): sc-925. Western blot analysis of EphA1 expression in T-47D (A), SW480 (B) and A549 (C) whole cell lysates.



EphA1 (G-18): sc-925. Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing cytoplasmic staining of exocrine glandular cells.

SELECT PRODUCT CITATIONS

- Carter, N., et al. 2002. Ephrin-A1-induced cytoskeletal re-organization requires FAK and p130^{cas}. *Nat. Cell Biol.* 4: 565-573.
- Kimura, K., et al. 2007. Knockdown of mitochondrial heat shock protein 70 promotes progeria-like phenotypes in *Caenorhabditis elegans*. *J. Biol. Chem.* 282: 5910-5918.
- Cui, X., et al. 2010. Mechanistic insight into the ability of American ginseng to suppress colon cancer associated with colitis. *Carcinogenesis* 31: 1734-1741.
- Giaginis, C., et al. 2014. Ephrin (Eph) receptor A1, A4, A5 and A7 expression in human non-small cell lung carcinoma: associations with clinicopathological parameters, tumor proliferative capacity and patients' survival. *BMC Clin. Pathol.* 14: 8.

RESEARCH USE

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



Try **EphA1 (5D2A10): sc-65994**, our highly recommended monoclonal alternative to EphA1 (G-18).