

EphA2 (C-3): sc-398832

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: EPHA2 (human) mapping to 1p36.13; EphA2 (mouse) mapping to 4 E1.

SOURCE

EphA2 (C-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 948-976 at the C-terminus of EphA2 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

EphA2 (C-3) is available conjugated to agarose (sc-398832 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398832 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398832 PE), fluorescein (sc-398832 FITC), Alexa Fluor® 488 (sc-398832 AF488), Alexa Fluor® 546 (sc-398832 AF546), Alexa Fluor® 594 (sc-398832 AF594) or Alexa Fluor® 647 (sc-398832 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398832 AF680) or Alexa Fluor® 790 (sc-398832 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-398832 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

EphA2 (C-3) is recommended for detection of EphA2 of mouse, rat, human and mink origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for EphA2 siRNA (h): sc-29304, EphA2 siRNA (m): sc-35320, EphA2 shRNA Plasmid (h): sc-29304-SH, EphA2 shRNA Plasmid (m): sc-35320-SH, EphA2 shRNA (h) Lentiviral Particles: sc-29304-V and EphA2 shRNA (m) Lentiviral Particles: sc-35320-V.

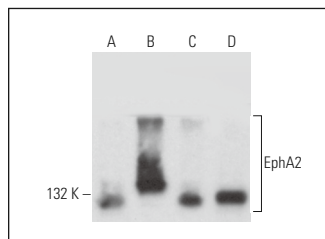
Molecular Weight of EphA2: 130 kDa.

Positive Controls: PC-3 cell lysate: sc-2220 or T24 cell lysate: sc-2292.

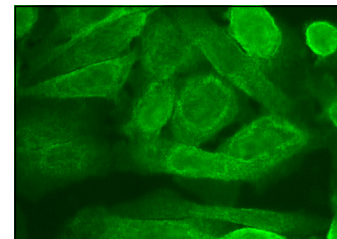
STORAGE

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

DATA



EphA2 (C-3): sc-398832. Western blot analysis of EphA2 expression in H69AR (A), PC-3 (B), T24 (C) and NIH/3T3 (D) whole cell lysates.



EphA2 (C-3) Alexa Fluor® 488: sc-398832 AF488. Direct immunofluorescence staining of formalin-fixed SW480 cells showing membrane localization. Blocked with UltraCruz® Blocking Reagent: sc-516214.

SELECT PRODUCT CITATIONS

- Megiorni, F., et al. 2017. Pharmacological targeting of the ephrin receptor kinase signalling by GLPG1790 *in vitro* and *in vivo* reverts oncophenotype, induces myogenic differentiation and radiosensitizes embryonal rhabdomyosarcoma cells. *J. Hematol. Oncol.* 10: 161.
- Bravo-Santano, N., et al. 2019. Host-directed kinase inhibitors act as novel therapies against intracellular *Staphylococcus aureus*. *Sci. Rep.* 9: 4876.
- Colapietro, A., et al. 2020. Antitumorigenic effects of inhibiting ephrin receptor kinase signaling by GLPG1790 against colorectal cancer cell lines *in vitro* and *in vivo*. *J. Oncol.* 2020: 9342732.
- Moyano-Galceran, L., et al. 2020. Adaptive RSK-EphA2-GPRC5A signaling switch triggers chemotherapy resistance in ovarian cancer. *EMBO Mol. Med.* 12: e11177.
- Volz, C., et al. 2020. Inhibition of tumor VEGFR2 induces serine 897 EphA2-dependent tumor cell invasion and metastasis in NSCLC. *Cell Rep.* 31: 107568.
- Li, Q.G., et al. 2020. HDAC7 promotes the oncogenicity of nasopharyngeal carcinoma cells by miR-4465-EphA2 signaling axis. *Cell Death Dis.* 11: 322.
- Talaat, I.M., et al. 2020. The prognostic value of ephrin type-A2 receptor and Ki-67 in renal cell carcinoma patients: an immunohistochemical and bioinformatical approach; a STROBE-compliant article. *Medicine* 99: e20191.
- Maroufi, N.F., et al. 2020. Inhibitory effect of melatonin on hypoxia-induced vasculogenic mimicry via suppressing epithelial-mesenchymal transition (EMT) in breast cancer stem cells. *Eur. J. Pharmacol.* 881: 173282.

RESEARCH USE

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

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