SANTA CRUZ BIOTECHNOLOGY, INC.

EphA2 (C-20): sc-924

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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: EPHA2 (human) mapping to 1p36.13; Epha2 (mouse) mapping to 4 E1.

SOURCE

EphA2 (C-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of EphA2 of mouse 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-924 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

EphA2 (C-20) is recommended for detection of EphA2 of mouse, rat, human and mink origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

EphA2 (C-20) is also recommended for detection of EphA2 in additional species, including equine, canine, bovine and porcine.

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: FHs 173We cell lysate: sc-2417, NIH/3T3 whole cell lysate: sc-2210 or A549 cell lysate: sc-2413.

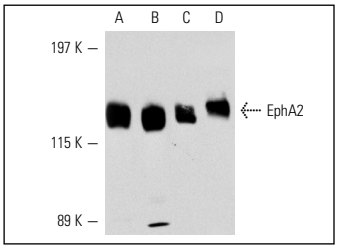
STORAGE

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

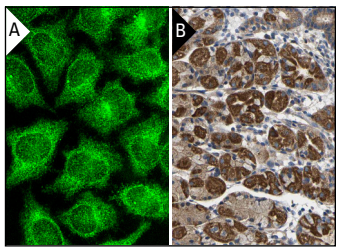
RESEARCH USE

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

DATA



EphA2 (C-20): sc-924. Western blot analysis of EphA2 expression in NIH/3T3 (**A**), A549 (**B**), FHs 173We (**C**) and Mv 1 Lu (**D**) whole cell lysates.



EphA2 (C-20): sc-924. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human stomach tissue showing cytoplasmic staining of glandular cells. Kindly provided by The Swedish Human Protein Atlas (HPA) program (**B**).

SELECT PRODUCT CITATIONS

1. Miao, H., et al. 2000. Activation of EphA2 kinase suppresses integrin function and causes focal-adhesion-kinase dephophorylation. Nat. Cell Biol. 2: 62-69.
2. Zhang, W., et al. 2010. A potential tumor suppressor role for Hic1 in breast cancer through transcriptional repression of ephrin-A1. Oncogene 29: 2467-2476.
3. Cui, X.D., et al. 2010. EFNA1 ligand and its receptor EphA2: potential biomarkers for hepatocellular carcinoma. Int. J. Cancer 126: 940-949.
4. Lin, S., et al. 2010. Ligand targeting of EphA2 enhances keratinocyte adhesion and differentiation via desmoglein 1. Mol. Biol. Cell 21: 3902-3914.
5. Hiramoto-Yamaki, N., et al. 2010. Ephexin4 and EphA2 mediate cell migration through a RhoG-dependent mechanism. J. Cell Biol. 190: 461-477.
6. Liu, Y., et al. 2011. Clinical significance of EphA2 expression in squamous-cell carcinoma of the head and neck. J. Cancer Res. Clin. Oncol. 137: 761-769.
7. Argenzio, E., et al. 2011. Proteomic snapshot of the EGF-induced ubiquitin network. Mol. Syst. Biol. 7: 462.
8. Foveau, B., et al. 2012. The receptor tyrosine kinase EphA2 is a direct target gene of hypermethylated in cancer 1 (HIC1). J. Biol. Chem. 287: 5366-5378.
9. Mosch, B., et al. 2012. Irradiation affects cellular properties and Eph receptor expression in human melanoma cells. Cell Adh. Migr. 6: 113-125.