SANTA CRUZ BIOTECHNOLOGY, INC.

EphA2 (3D7): sc-135658

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. 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).

REFERENCES

1. Beckmann, M.P., et al. 1994. Molecular characterization of a family of ligands for Eph-related tyrosine kinase receptors. EMBO J. 13: 3757-3762.
2. 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.
3. 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.
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. Fox, G.M., et al. 1995. DNA cloning and tissue distribution of five human Eph-like receptor protein-tyrosine kinases. Oncogene 10: 897-905.
6. Valenzuela, D.M., et al. 1995. Identification of full length and truncated forms of Ehk-3, a novel member of the Eph receptor tyrosine kinase family. Oncogene 10: 1573-1580.
7. Bennett, B.D., et al. 1995. Molecular cloning of a ligand for the Eph-related receptor protein-tyrosine kinase Htk. Proc. Natl. Acad. Sci. USA 92: 1866-1870.

CHROMOSOMAL LOCATION

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

SOURCE

EphA2 (3D7) is a mouse monoclonal antibody raised against amino acids 559-976 corresponding to recombinant EphA2 of human origin.

PRODUCT

Each vial contains 50 µg IgG_{2b} in 500 µl of PBS with < 0.1% sodium azide, 0.1% gelatin and 1% glycerol.

RESEARCH USE

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

APPLICATIONS

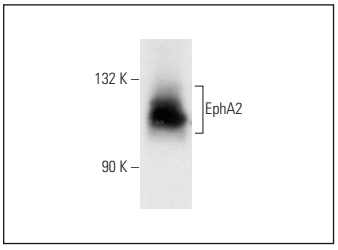
EphA2 (3D7) is recommended for detection of EphA2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for 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.

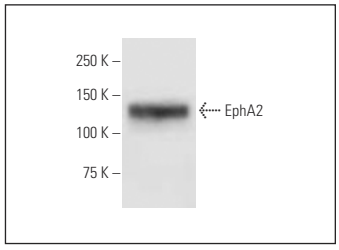
Molecular Weight of EphA2: 130 kDa.

Positive Controls: mouse brain extract: sc-2253, A549 cell lysate: sc-2413 or NIH/3T3 whole cell lysate: sc-2210.

DATA



EphA2 (3D7): sc-135658. Western blot analysis of EphA2 expression in A549 whole cell lysate.



EphA2 (3D7): sc-135658. Western blot analysis of EphA2 expression in mouse brain tissue.

SELECT PRODUCT CITATIONS

1. Wu, Z., et al. 2011. Quantitative chemical proteomics reveals new potential drug targets in head and neck cancer. Mol. Cell. Proteomics 10: M111.011635.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

CONJUGATES

See **EphA2 (C-3): sc-398832** for EphA2 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.