SANTA CRUZ BIOTECHNOLOGY, INC.

EphB2 (2D12C6): sc-130068

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: EPHB2 (human) mapping to 1p36.12; Ephb2 (mouse) mapping to 4 D3.

SOURCE

EphB2 (2D12C6) is a mouse monoclonal antibody raised against a recombinant protein corresponding to amino acids 17-200 of EphB2 of human 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.

EphB2 (2D12C6) is available conjugated to agarose (sc-130068 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-130068 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-130068 PE), fluorescein (sc-130068 FITC), Alexa Fluor® 488 (sc-130068 AF488), Alexa Fluor® 546 (sc-130068 AF546), Alexa Fluor® 594 (sc-130068 AF594) or Alexa Fluor® 647 (sc-130068 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-130068 AF680) or Alexa Fluor® 790 (sc-130068 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

EphB2 (2D12C6) is recommended for detection of EphB2 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for EphB2 siRNA (h): sc-39949, EphB2 siRNA (m): sc-39950, EphB2 shRNA Plasmid (h): sc-39949-SH, EphB2 shRNA Plasmid (m): sc-39950-SH, EphB2 shRNA (h) Lentiviral Particles: sc-39949-V and EphB2 shRNA (m) Lentiviral Particles: sc-39950-V.

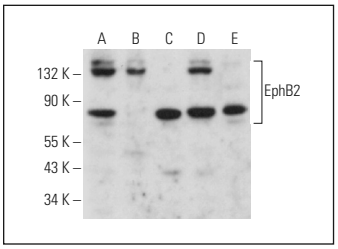
Molecular Weight of EphB2: 130 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, Hep G2 cell lysate: sc-2227 or K-562 whole cell lysate: sc-2203.

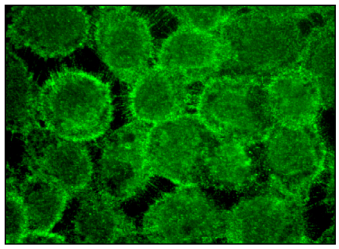
STORAGE

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

DATA



EphB2 (2D12C6): sc-130068. Western blot analysis of EphB2 expression in Jurkat (**A**), Hep G2 (**B**), EOC 20 (**C**), K-562 (**D**) and NIH/3T3 (**E**) whole cell lysates.



EphB2 (2D12C6): sc-130068. Immunofluorescence staining of formalin-fixed A-431 cells showing membrane localization.

SELECT PRODUCT CITATIONS

1. 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.
2. TerBush, A.A., et al. 2018. A Kaposi's sarcoma-associated herpesvirus infection mechanism is independent of Integrins $\alpha 3\beta 1$, $\alpha_V\beta_3$, and $\alpha_V\beta_5$. J. Virol. 92: e00803-18.
3. Koppers, M., et al. 2019. Receptor-specific interactome as a hub for rapid cue-induced selective translation in axons. Elife 8: e48718.
4. Chen, J., et al. 2020. TAGAP instructs Th17 differentiation by bridging Dectin activation to EPHB2 signaling in innate antifungal response. Nat. Commun. 11: 1913.
5. Zhang, H., et al. 2021. RNF186 regulates EFNB1 (ephrin B1)-EphB2-induced autophagy in the colonic epithelial cells for the maintenance of intestinal homeostasis. Autophagy 17: 3030-3047.
6. Yang, X., et al. 2021. Transferrin-Pep63-liposomes accelerate the clearance of Aβ and rescue impaired synaptic plasticity in early Alzheimer's disease models. Cell Death Discov. 7: 256.
7. Liu, J., et al. 2022. Prediction of prognosis, immunogenicity and efficacy of immunotherapy based on glutamine metabolism in lung adenocarcinoma. Front. Immunol. 13: 960738.
8. Zhang, H., et al. 2022. RNF186/EphB2 axis is essential in regulating TNF signaling for colorectal tumorigenesis in colorectal epithelial cells. J. Immunol. 209: 1796-1805.

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.