SANTA CRUZ BIOTECHNOLOGY, INC.

endobrevin (G-12): sc-166820

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Syntaxins were originally thought to be docking proteins, but have more recently been categorized as anchoring proteins that anchor themselves to the cytoplasmic surfaces of cellular membranes. Syntaxins bind to various proteins involved in exocytosis, including VAMPs (vesicle-associated membrane proteins), NSF (N-ethylmaleimide-sensitive factor), SNAPs (soluble NSF attachment proteins) and Synaptotagmin. Endobrevin, also designated VAMP-8 or ED, is a 100 amino acid single-pass type IV membrane protein that belongs to the synaptobrevin family. Similar in sequence to the synaptobrevins, endobrevin is abundantly expressed in kidney, moderately expressed in heart and spleen, and slightly expressed in brain, thymus and liver. Endobrevin interacts specifically with the SNAPs, most likely through an endobrevin-containing SNARE complex.

CHROMOSOMAL LOCATION

Genetic locus: VAMP8 (human) mapping to 2p11.2; Vamp8 (mouse) mapping to 6 C1.

SOURCE

endobrevin (G-12) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 25-50 near the N-terminus of endobrevin of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

endobrevin (G-12) is available conjugated to agarose (sc-166820 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166820 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166820 PE), fluorescein (sc-166820 FITC), Alexa Fluor® 488 (sc-166820 AF488), Alexa Fluor® 546 (sc-166820 AF546), Alexa Fluor® 594 (sc-166820 AF594) or Alexa Fluor® 647 (sc-166820 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166820 AF680) or Alexa Fluor® 790 (sc-166820 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-166820 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

endobrevin (G-12) is recommended for detection of endobrevin of mouse, rat and human 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).

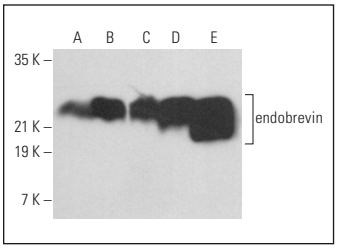
Suitable for use as control antibody for endobrevin siRNA (h): sc-41300, endobrevin siRNA (m): sc-41301, endobrevin shRNA Plasmid (h): sc-41300-SH, endobrevin shRNA Plasmid (m): sc-41301-SH, endobrevin shRNA (h) Lentiviral Particles: sc-41300-V and endobrevin shRNA (m) Lentiviral Particles: sc-41301-V.

Molecular Weight of endobrevin: 11 kDa.

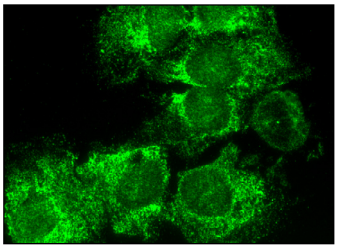
STORAGE

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

DATA



endobrevin (G-12): sc-166820. Western blot analysis of endobrevin expression in HeLa (**A**), HEK293 (**B**), A-431 (**C**), U-937 (**D**) and HL-60 (**E**) whole cell lysates.



endobrevin (G-12): sc-166820. Immunofluorescence staining of formalin-fixed Hep G2 cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Wesolowski, J., et al. 2012. A novel function for SNAP29 (synaptosomal-associated protein of 29 kDa) in mast cell phagocytosis. PLoS ONE 7: e49886.
2. Verboogen, D.R.J., et al. 2017. Fluorescence lifetime imaging microscopy reveals rerouting of SNARE trafficking driving dendritic cell activation. Elife 6: e23525.
3. Cui, Z., et al. 2018. Nanodiamond autophagy inhibitor allosterically improves the arsenical-based therapy of solid tumors. Nat. Commun. 9: 4347.
4. Gu, Y., et al. 2019. Mammalian Atg8 proteins regulate lysosome and autolysosome biogenesis through SNAREs. EMBO J. 38: e101994.
5. Chae, C.W., et al. 2020. High glucose-mediated PICALM and mTORC1 modulate processing of amyloid precursor protein via endosomal abnormalities. Br. J. Pharmacol. 177: 3828-3847.
6. Wang, Y., et al. 2020. Silencing DAPK3 blocks the autophagosome-lysosome fusion by mediating SNAP29 in trophoblast cells under high glucose treatment. Mol. Cell. Endocrinol. 502: 110674.
7. Pokrovskaya, I.D., et al. 2020. 3D ultrastructural analysis of α-granule, dense granule, mitochondria, and canalicular system arrangement in resting human platelets. Res. Pract. Thromb. Haemost. 4: 72-85.
8. Shen, Q., et al. 2020. Acetylation of STX17 (Syntaxin 17) controls autophagosome maturation. Autophagy. E-published.
9. Su, H., et al. 2021. Cancer cells escape autophagy inhibition via NRF2-induced macropinocytosis. Cancer Cell 39: 678-693.e11.
10. Moriggi, M., et al. 2021. Muscle proteomic profile before and after enzyme replacement therapy in late-onset pompe disease. Int. J. Mol. Sci. 22: 2850.

RESEARCH USE

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