

Endophilin B1 (G-6): sc-374146

BACKGROUND

The endophilins comprise a family of proteins that associate with amphiphysin, synaptojanin and dynamin and are implicated in presynaptic vesicle trafficking at nerve terminals. The expression patterns of the endophilins are consistent with their cellular functions at the neuronal synapse. Endophilin B1 is a member of the B subgroup of the endophilin family that is required for maintenance of mitochondrial morphology and for the regulation of the outer mitochondrial membrane dynamics. The N-terminal domain of Endophilin B1 shares highest similarity with the lipid-binding and -modifying (LBM) domain of class A endophilins. The Endophilin B1 gene encodes at least three splice variants: Endophilin B1a, which shows a widespread tissue distribution, and Endophilin B1b and B1c, which appear to be brain-specific.

REFERENCE

- Pierrat, B., et al. 2001. SH3GLB, a new endophilin-related protein family featuring an SH3 domain. *Genomics* 71: 222-234.
- Modregger, J., et al. 2003. Characterization of Endophilin B1b, a brain-specific membrane-associated lysophosphatidic acid acyl transferase with properties distinct from Endophilin A1. *J. Biol. Chem.* 278: 4160-4167.
- Wang, M.Q., et al. 2003. Endophilins interact with Moloney murine leukemia virus Gag and modulate virion production. *J. Biol.* 3: 4.
- Engidawork, E., et al. 2003. Aberrant protein expression in cerebral cortex of fetus with Down syndrome. *Neuroscience* 122: 145-154.

CHROMOSOMAL LOCATION

Genetic locus: SH3GLB1 (human) mapping to 1p22.3; Sh3glb1 (mouse) mapping to 3 H2.

SOURCE

Endophilin B1 (G-6) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 61-91 near the N-terminus of Endophilin B1 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Endophilin B1 (G-6) is available conjugated to agarose (sc-374146 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-374146 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-374146 PE), fluorescein (sc-374146 FITC), Alexa Fluor® 488 (sc-374146 AF488), Alexa Fluor® 546 (sc-374146 AF546), Alexa Fluor® 594 (sc-374146 AF594) or Alexa Fluor® 647 (sc-374146 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-374146 AF680) or Alexa Fluor® 790 (sc-374146 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-374146 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

Endophilin B1 (G-6) is recommended for detection of Endophilin B1 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

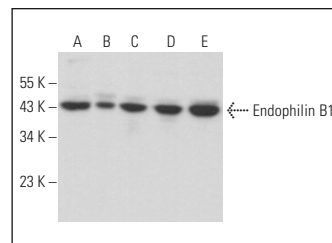
Endophilin B1 (G-6) is also recommended for detection of Endophilin B1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Endophilin B1 siRNA (h): sc-63282, Endophilin B1 siRNA (m): sc-63283, Endophilin B1 shRNA Plasmid (h): sc-63282-SH, Endophilin B1 shRNA Plasmid (m): sc-63283-SH, Endophilin B1 shRNA (h) Lentiviral Particles: sc-63282-V and Endophilin B1 shRNA (m) Lentiviral Particles: sc-63283-V.

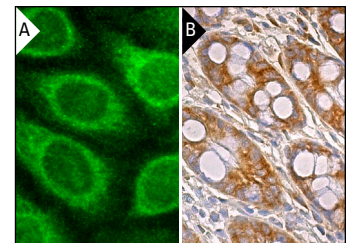
Molecular Weight of Endophilin B1: 43 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, HeLa whole cell lysate: sc-2200 or NIH/3T3 whole cell lysate: sc-2210.

DATA



Endophilin B1 (G-6): sc-374146. Western blot analysis of Endophilin B1 expression in HeLa (A), A-431 (B), NIH/3T3 (C), RAW 264.7 (D) and A-10 (E) whole cell lysates.



Endophilin B1 (G-6): sc-374146. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human rectum tissue showing cytoplasmic staining of glandular cells (B).

SELECT PRODUCT CITATIONS

- Mir, S.U., et al. 2015. Inhibition of autophagic turnover in β -cells by fatty acids and glucose leads to apoptotic cell death. *J. Biol. Chem.* 290: 6071-6085.
- Zhang, X., et al. 2019. GORASP2/GRASP55 collaborates with the PtdIns3K UVRAG complex to facilitate autophagosome-lysosome fusion. *Autophagy* 15: 1787-1800.

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.