Endophilin B2 (H-60): sc-99226



The Power to Question

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. Endophilin B2 is also a member of the Endophilin B subroup that is ubiquitously expressed but shows highest levels in brain, adult lung, ovary, and spinal cord. Decreased levels of Endophilin B2 are found in Down Syndrome and may reflect brain dysgenesis.

REFERENCES

- Pierrat, B., Simonen, M., Cueto, M., Mestan, J., Ferrigno, P. and Heim, J. 2001. SH3GLB, a new Endophilin-related protein family featuring an SH3 domain. Genomics 71: 222-234.
- Modregger, J., Schmidt, A.A., Ritter, B., Huttner, W.B. and Plomann, M. 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.
- 3. Wang, M.Q., Kim, W., Gao, G., Torrey, T.A., Morse, H.C., 3rd, De Camilli, P., Goff, S.P. 2003. Endophilins interact with Moloney murine leukemia virus Gag and modulate virion production. J. Biol. 3: 4.
- 5. Engidawork, E., Gulesserian, T., Fountoulakis, M. and Lubec, G. 2003. Aberrant protein expression in cerebral cortex of fetus with Down syndrome. Neuroscience 122: 145-154.
- Karbowski, M., Jeong, S.Y. and Youle, R.J. 2004. Endophilin B1 is required for the maintenance of mitochondrial morphology. J. Cell Biol. 166: 1027-1039.
- Takahashi, Y., Karbowski, M., Yamaguchi, H., Kazi, A., Wu, J., Sebti, S.M., Youle, R.J. and Wang, H.G. 2005. Loss of Bif-1 suppresses Bax/Bak conformational change and mitochondrial apoptosis. Mol. Cell. Biol. 25: 9369-9382.
- Aramaki, Y., Ogawa, K., Toh, Y., Ito, T., Akimitsu, N., Hamamoto, H., Sekimizu, K., Matsusue, K., Kono, A., Iguchi, H. and Takiguchi, S. 2005. Direct interaction between metastasis-associated protein 1 and Endophilin 3. FEBS. Lett. 579: 3731-3736.

CHROMOSOMAL LOCATION

Genetic locus: SH3GLB2 (human) mapping to 9q34.11; Sh3glb2 (mouse) mapping to 2 B.

SOURCE

Endophilin B2 (H-60) is a rabbit polyclonal antibody raised against amino acids 81-140 mapping near the N-terminus of Endophilin B2 of human origin.

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Endophilin B2 (H-60) is recommended for detection of Endophilin B2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

Endophilin B2 (H-60) is also recommended for detection of Endophilin B2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Endophilin B2 siRNA (h): sc-60579, Endophilin B2 siRNA (m): sc-60580, Endophilin B2 shRNA Plasmid (h): sc-60579-SH, Endophilin B2 shRNA Plasmid (m): sc-60580-SH, Endophilin B2 shRNA (h) Lentiviral Particles: sc-60579-V and Endophilin B2 shRNA (m) Lentiviral Particles: sc-60580-V.

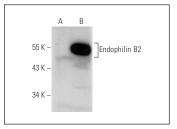
Molecular Weight of Endophilin B2: 44 kDa.

Positive Controls: Endophilin B2 (h2): 293T Lysate: sc-177187.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit lgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit lgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit lgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit lgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Endophilin B2 (H-60): sc-99226. Western blot analysis of Endophilin B2 expression in non-transfected: sc-117752 (A) and human Endophilin B2 transfected: sc-177187 (B) 293T whole cell lysates.

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.