

# Endophilin B1 (M-62): sc-134843

## 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. Endophilin B2 is also a member of the Endophilin B subgroup 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., 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 B1 $\beta$ , 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.
- Karbowski, M., et al. 2004. Endophilin B1 is required for the maintenance of mitochondrial morphology. *J. Cell Biol.* 166: 1027-1039.
- Takahashi, Y., et al. 2005. Loss of Bif-1 suppresses Bax/Bak conformational change and mitochondrial apoptosis. *Mol. Cell. Biol.* 25: 9369-9382.
- Aramaki, Y., et al. 2005. Direct interaction between metastasis-associated protein 1 and endophilin 3. *FEBS Lett.* 579: 3731-3736.

## CHROMOSOMAL LOCATION

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

## SOURCE

Endophilin B1 (M-62) is a rabbit polyclonal antibody raised against amino acids 250-311 mapping near the C-terminus of Endophilin B1 of mouse origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.

## APPLICATIONS

Endophilin B1 (M-62) is recommended for detection of Endophilin B1 of mouse, rat and, to a lesser extent, human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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).

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

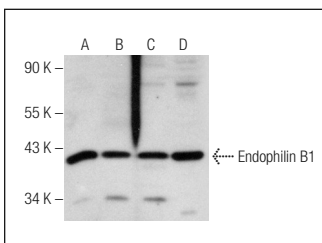
Molecular Weight of Endophilin B1: 43 kDa.

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

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-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 IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



Endophilin B1 (M-62): sc-134843. Western blot analysis of Endophilin B1 expression in NIH/3T3 (A), Hep G2 (B), HeLa (C) and RAW 264.7 (D) whole cell lysates.

## RESEARCH USE

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

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Try **Endophilin B1 (G-6): sc-374146** or **Endophilin B1 (A-9): sc-393191**, our highly recommended monoclonal alternatives to Endophilin B1 (M-62).