

# Endophilin B1/2 (N-19): sc-50568

## 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 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.
- 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: SH3GLB2 (human) mapping to 9q34.11, SH3GLB1 (human) mapping to 1p22.3; Sh3glb2 (mouse) mapping to 2 B, Sh3glb1 (mouse) mapping to 3 H2.

## SOURCE

Endophilin B1/2 (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Endophilin B1 of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-50568 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

Endophilin B1/2 (N-19) is recommended for detection of Endophilin B1/2 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).

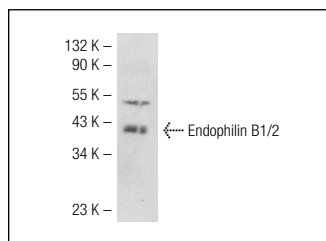
Endophilin B1/2 (N-19) is also recommended for detection of Endophilin B1/2 in additional species, including equine, canine, bovine, porcine and avian.

Molecular Weight of Endophilin B1/2: 40 kDa.

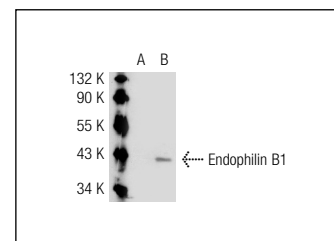
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



Endophilin B1/2 (N-19): sc-50568. Western blot analysis of Endophilin B1/2 expression in mouse brain tissue extract.



Endophilin B1/2 (N-19): sc-50568. Western blot analysis of Endophilin B1 expression in non-transfected: sc-117752 (A) and mouse Endophilin B1 transfected: sc-120038 (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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

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Satisfaction  
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Try **Endophilin B1 (G-6): sc-374146** or **Endophilin B2 (A-10): sc-365608**, our highly recommended monoclonal alternatives to Endophilin B1/2 (N-19).