

Endophilin B2 (E-2): sc-393989

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 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

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- Modregger, J., et al. 2003. Characterization of Endophilin B1 β , 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.
- Karbowsky, 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; Sh3glb2 (mouse) mapping to 2 B.

SOURCE

Endophilin B2 (E-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 349-374 at the C-terminus of Endophilin B2 of human origin.

PRODUCT

Each vial contains 200 μ g IgG₃ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-393989 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

Endophilin B2 (E-2) is recommended for detection of all isoforms of Endophilin B2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 (E-2) is also recommended for detection of all isoforms 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.

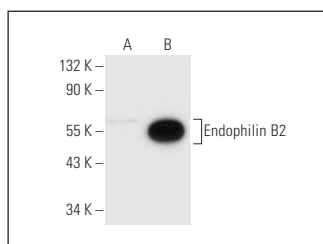
Molecular Weight of Endophilin B2: 44 kDa.

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

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Endophilin B2 (E-2): sc-393989. 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.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.