

Endophilin III (S-15): sc-10880

BACKGROUND

The Endophilins comprise a family of three SH3 domain-containing proteins designated Endophilin I, II and III, or alternatively known as SH3P4, SH3P8 and SH3P13, respectively. These proteins 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 as Endophilin I is expressed only in the brain. Both Endophilin II and Endophilin III are detected in a variety of tissues. Endophilin I is also implicated in modulating G protein-coupled receptor signaling by functioning as an adapter protein and directing $\beta 1$ adrenergic receptors to the endocytic machinery.

REFERENCES

1. Giachino, C., et al. 1997. Novel SH3-containing human gene family preferentially expressed in the central nervous system. *Genomics* 41: 427-434.
2. Ringstad, N., et al. 1997. The SH3p4/Sh3p8/SH3p13 protein family: binding partners for synaptojanin and dynamin via a GRB2-like Src homology 3 domain. *Proc. Natl. Acad. Sci. USA* 94: 8569-8574.
3. Micheva, K.D., et al. 1997. SH3 domain-dependent interactions of endophilin with amphiphysin. *FEBS Lett.* 414: 308-312.

CHROMOSOMAL LOCATION

Genetic locus: Sh3gl3 (mouse) mapping to 7 D3.

SOURCE

Endophilin III (S-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Endophilin III of mouse origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-10880 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Endophilin III (S-15) is recommended for detection of Endophilin III of mouse and, to a lesser extent, rat 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).

Suitable for use as control antibody for Endophilin III siRNA (m): sc-35309, Endophilin III shRNA Plasmid (m): sc-35309-SH and Endophilin III shRNA (m) Lentiviral Particles: sc-35309-V.

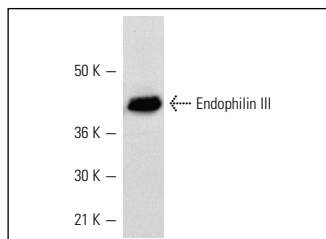
Molecular Weight of Endophilin III: 40 kDa.

Positive Controls: mouse brain extract: sc-2253 or Endophilin III (m): 293T Lysate: sc-126796.

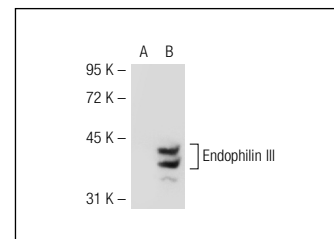
RECOMMENDED SECONDARY REAGENTS

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 III (S-15): sc-10880. Western blot analysis of Endophilin III expression in mouse brain extract.



Endophilin III (S-15): sc-10880. Western blot analysis of Endophilin III expression in non-transfected: sc-117752 (A) and mouse Endophilin III transfected: sc-126796 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Schöbel, S., et al. 2006. Expression cloning screen for modifiers of amyloid precursor protein shedding. *Int. J. Dev. Neurosci.* 24: 141-148.
2. Meinecke, M., et al. 2013. Cooperative recruitment of dynamin and BIN/amphiphysin/Rvs (BAR) domain-containing proteins leads to GTP-dependent membrane scission. *J. Biol. Chem.* 288: 6651-6661.

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.

PROTOCOLS

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



Try **Endophilin III (F-4): sc-376592**, our highly recommended monoclonal alternative to Endophilin III (S-15).