SANTA CRUZ BIOTECHNOLOGY, INC.

Endophilin I (S-20): sc-10874

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 β1 adrenergic receptors to the endocytic machinery.

CHROMOSOMAL LOCATION

Genetic locus: SH3GL2 (human) mapping to 9p22.2; Sh3gl2 (mouse) mapping to 4 C4.

SOURCE

Endophilin I (S-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Endophilin I of mouse 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-10874 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

Endophilin I (S-20) is recommended for detection of Endophilin I 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), immunohistochemistry (including paraffin-embedded sections) (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 I (S-20) is also recommended for detection of Endophilin I in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Endophilin I siRNA (h): sc-35304, Endophilin I siRNA (m): sc-35305, Endophilin I shRNA Plasmid (h): sc-35304-SH, Endophilin I shRNA Plasmid (m): sc-35305-SH, Endophilin I shRNA (h) Lentiviral Particles: sc-35304-V and Endophilin I shRNA (m) Lentiviral Particles: sc-35305-V.

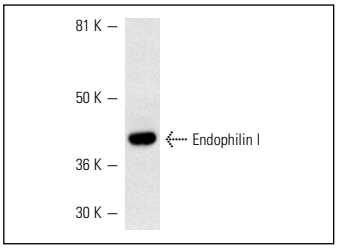
Molecular Weight of Endophilin I: 40 kDa.

Positive Controls: mouse brain extract: sc-2253, mouse testis extract: sc-2405 or F9 cell lysate: sc-2245.

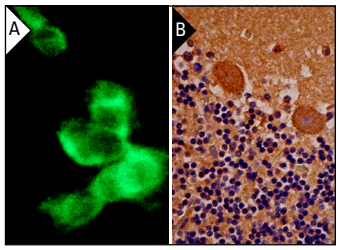
RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



Endophilin I (S-20): sc-10874. Western blot analysis of Endophilin I expression in mouse brain extract.



Endophilin I (S-20): sc-10874. Immunofluorescence staining of methanol-fixed SK-N-SH cells showing cytoplasmic staining (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human cerebellum tissue showing cytoplasmic staining of Purkinje cells and cells in granular layers and cytoplasmic and nuclear staining of cells in molecular layer (**B**).

SELECT PRODUCT CITATIONS

1. Soubeyran, P., et al. 2002. Cbl-CIN85-endophilin complex mediates ligand-induced downregulation of EGF receptors. Nature 416: 183-187.
2. Nonis, D., et al. 2008. Ataxin-2 associates with the endocytosis complex and affects EGF receptor trafficking. Cell. Signal. 20: 1725-1739.
3. Maiti, G.P., et al. 2012. Reduced expression of LIMD1 in ulcerative oral epithelium associated with tobacco and areca nut. Asian Pac. J. Cancer Prev. 13: 4341-4346.
4. Maiti, G.P., et al. 2013. Overexpression of EGFR in head and neck squamous cell carcinoma is associated with inactivation of SH3GL2 and CDC25A genes. PLoS ONE 8: e63440.

RESEARCH USE

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