Endophilin II (h): 293 Lysate: sc-110538



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., Lantelme, E., Lanzetti, L., Saccone, S., Bella Valle, G. and Migone, N. 1997. Novel SH3-containing human gene family preferentially expressed in the central nervous system. Genomics 41: 427-434.
- Ringstad, N., Nemoto, Y. and De Camilli, P. 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.
- Micheva, K.D., Ramjaun, A.R., Kay, B.K. and McPherson, P.S. 1997. SH3 domain-dependent interactions of endophilin with amphiphysin. FEBS Lett. 414: 308-312.
- Cestra, G., Castagnoli, L., Dente, L., Minenkova, O., Petrelli, A., Migone, N., Hoffmüller, U., Schneider-Mergener, J. and Cesareni, G. 1999. The SH3 domains of endophilin and amphiphysin bind to the proline-rich region of Synaptojanin 1 at distinct sites that display an unconventional binding specificity. J. Biol. Chem. 274: 32001-32007.
- Schmidt, A., Wolde, M., Thiele, C., Fest, W., Kratzin, H., Podtelejnikov, A.V., Witke, W., Huttner, W.B. and Söling, H.D. 1999. Endophilin I mediates syn-aptic vesicle formation by transfer of arachidonate to lysophosphatidic acid. Nature 401: 133-141.
- Simpson, F., Hussain, N.K., Qualmann, B., Kelly, R.B., Kay, B.K., McPherson, P.S. and Schmid, S.L. 1999. SH3-domain-containing proteins function at distinct steps in Clathrin-coated vesicle formation. Nat. Cell Biol. 1: 119-124.
- 7. Tang, Y., Hu, L.A., Miller, W.E., Ringstad, N., Hall, R.A., Pitcher, J.A., DeCamilli, P. and Lefkowitz, R.J. 1999. Identification of the endophilins (SH3p4/p8/p13) as novel binding partners for the β 1 adrenergic receptor. Proc. Natl. Acad. Sci. USA 96: 12559-12564.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: SH3GL1 (human) mapping to 19p13.3.

PRODUCT

Endophilin II (h): 293 Lysate represents a lysate of human Endophilin II transfected 293 cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

Endophilin II (h): 293 Lysate is suitable as a Western Blotting positive control for human reactive Endophilin II antibodies. Recommended use: 10-20 μ l per lane.

Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

RESEARCH USE

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

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 Fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com