

Dynamin I (h): 293T Lysate: sc-117282

BACKGROUND

Members of the dynamin family, including Dynamin I and Dynamin II, are GTPase, microtubule-associated proteins which are involved in endocytosis, synaptic transmission and neurogenesis. Dynamin I is localized to the central nervous system, while Dynamin II exhibits ubiquitous distribution with highest expression found in testis. Both dynamin proteins contain SH3 and proline-rich domains that mediate interactions between the dynamins and effectors of their GTPase activity. The interactions with these effectors, which include microtubules, acidic phospholipids and SH3 domain-containing proteins, are required for rapid endocytosis. Dynamin I appears to be recruited to clathrin coated pits by SH3 domain interaction with amphiphysin, a protein highly expressed in brain.

REFERENCES

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4. Shpetner, H.S., et al. 1996. A binding site for SH3 domains targets dynamin to coated pits. *J. Biol. Chem.* 271: 13-16.
5. Okamoto, P.M., et al. 1997. Role of the basic, proline-rich region of dynamin in Src homology 3 domain binding and endocytosis. *J. Biol. Chem.* 272: 11629-11635.
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7. Scaife, R.M., et al. 1997. The role of the PH domain and SH3 binding domains in dynamin function. *Cell. Signal.* 9: 395-401.
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CHROMOSOMAL LOCATION

Genetic locus: DNM1 (human) mapping to 9q34.11.

PRODUCT

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

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.

APPLICATIONS

Dynamin I (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive Dynamin I antibodies. Recommended use: 10-20 µl per lane.

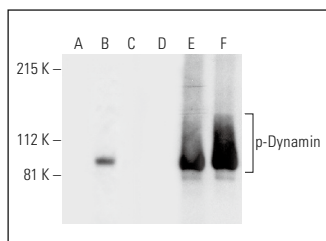
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Dynamin I (D5): sc-12724 is recommended as a positive control antibody for Western Blot analysis of enhanced human Dynamin I expression in Dynamin I transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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.

DATA



Western blot analysis of Dynamin I phosphorylation in non-transfected: sc-117752 (A,D), untreated human Dynamin I transfected: sc-117282 (B,E) and lambda protein phosphatase (sc-200312A) treated human Dynamin I transfected: sc-117282 (C,F) 293T whole cell lysates. Antibodies tested include p-Dynamin I (E-9): sc-377563 (A,B,C) and Dynamin I (D5): sc-12724 (D,E,F).

RESEARCH USE

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