

epsin 1 (m): 293T Lysate: sc-126801

BACKGROUND

Epsin 1 (EPN1) is an endocytic accessory protein, with significant similarity to the *Xenopus* mitotic phosphoprotein MP90. Epsin 1 interacts with Eps15 (the α subunit of the Clathrin adaptor AP2), Clathrin and other accessory proteins. The mitotic phosphorylation of these proteins may be one of the mechanisms by which the invagination of Clathrin-coated pits is blocked in mitosis. Both epsin and Eps15, like other cytosolic components of the synaptic vesicle endocytic machinery, undergo constitutive phosphorylation and depolarization-dependent dephosphorylation in nerve terminals. Epsin 1 also contributes to the mechanism of Clathrin-vesicle-dependent endocytosis. The human Epsin 1 protein contains an epsin N-terminal homology (ENTH) region and a single Clathrin-binding (LVLDL) motif. Epsin 1 localizes to the leading edge of a vesicular coated pit where the membrane is being actively bent.

REFERENCES

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3. Morinaka, K., et al. 1999. Epsin binds to the EH domain of POB1 and regulates receptor-mediated endocytosis. *Oncogene* 18: 5915-5922.
4. Drake, M.T., et al. 2000. Epsin binds to Clathrin by associating directly with the Clathrin-terminal domain. Evidence for cooperative binding through two discrete sites. *J. Biol. Chem.* 275: 6479-6489.
5. Oldham, C.E., et al. 2002. The ubiquitin-interacting motifs target the endocytic adaptor protein epsin for ubiquitination. *Curr. Biol.* 12: 1112-1116.
6. Ford, M.G., et al. 2002. Curvature of Clathrin-coated pits driven by epsin. *Nature* 419: 361-366.
7. Wendland, B. 2002. Epsins: adaptors in endocytosis? *Nat. Rev. Mol. Cell Biol.* 3: 971-977.
8. Hussain, N.K., et al. 2003. A role for epsin N-terminal homology/AP180 N-terminal homology (ENTH/ANTH) domains in tubulin binding. *J. Biol. Chem.* 278: 28823-28830.
9. Stahelin, R.V., et al. 2003. Contrasting membrane interaction mechanisms of AP180 N-terminal homology (ANTH) and epsin N-terminal homology (ENTH) domains. *J. Biol. Chem.* 278: 28993-28999.

CHROMOSOMAL LOCATION

Genetic locus: Epn1 (mouse) mapping to 7 A1.

PRODUCT

epsin 1 (m): 293T Lysate represents a lysate of mouse epsin 1 transfected 293T cells and is provided as 100 μ g protein in 200 μ l 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.

APPLICATIONS

epsin 1 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive epsin 1 antibodies. Recommended use: 10-20 μ l per lane.

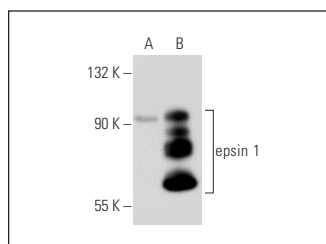
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

epsin 1 (C-11): sc-55556 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse epsin 1 expression in epsin 1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

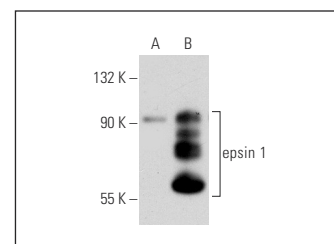
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-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.

DATA



epsin 1 (C-11): sc-55556. Western blot analysis of epsin 1 expression in non-transfected: sc-117752 (A) and mouse epsin 1 transfected: sc-126801 (B) 293T whole cell lysates.



epsin 1 (G-12): sc-48372. Western blot analysis of epsin 1 expression in non-transfected: sc-117752 (A) and mouse epsin 1 transfected: sc-126801 (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.