

epsin 1 (H-130): sc-25521

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 (LVDLD) motif. Epsin 1 localizes to the leading edge of a vesicular coated pit where the membrane is being actively bent.

REFERENCES

- Chen, H., et al. 1998. Epsin is an EH-domain-binding protein implicated in Clathrin-mediated endocytosis. *Nature* 394: 793-797.
- Rosenthal, J.A., et al. 1999. The epsins define a family of proteins that interact with components of the Clathrin coat and contain a new protein module. *J. Biol. Chem.* 274: 33959-33965.

CHROMOSOMAL LOCATION

Genetic locus: EPN1 (human) mapping to 19q13.42; Epn1 (mouse) mapping to 7 A1.

SOURCE

epsin 1 (H-130) is a rabbit polyclonal antibody raised against amino acids 311-440 of epsin 1 of human origin.

PRODUCT

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

APPLICATIONS

epsin 1 (H-130) is recommended for detection of epsin 1 of mouse, rat and human 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), 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).

Suitable for use as control antibody for epsin 1 siRNA (h): sc-35323, epsin 1 siRNA (m): sc-35324, epsin 1 shRNA Plasmid (h): sc-35323-SH, epsin 1 shRNA Plasmid (m): sc-35324-SH, epsin 1 shRNA (h) Lentiviral Particles: sc-35323-V and epsin 1 shRNA (m) Lentiviral Particles: sc-35324-V.

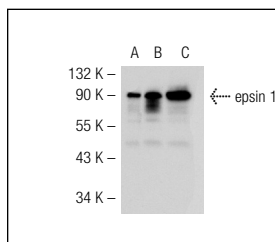
Molecular Weight of epsin 1: 94 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or epsin 1 (h): 293T Lysate: sc-115661.

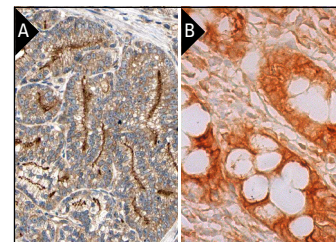
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz[™]: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



epsin 1 (H-130): sc-25521. Western blot analysis of epsin 1 expression in non-transfected 293T: sc-117752 (A), human epsin 1 transfected 293T: sc-115661 (B) and Jurkat (C) whole cell lysates.



epsin 1 (H-130): sc-25521. Immunoperoxidase staining of formalin fixed, paraffin-embedded human prostate cancer tissue showing luminal membrane staining of tumor cells magnification. Kindly provided by The Swedish Human Protein Atlas (HPA) program (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human rectum tissue showing cytoplasmic and membrane staining of glandular cells (B).

SELECT PRODUCT CITATIONS

- De Domenico, I., et al. 2007. The molecular mechanism of hepcidin-mediated ferroportin down-regulation. *Mol. Biol. Cell.* 18: 2569-2578.

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 **epsin 1 (C-11): sc-55556** or **epsin 1 (G-11): sc-55564**, our highly recommended monoclonal alternatives to epsin 1 (H-130).