SANTA CRUZ BIOTECHNOLOGY, INC.

epsin 1 (R-20): sc-8673

SANTA CRUZ BIOTECHNOLOGY
The Power to Question

BACKGROUND

Epsin 1 (EPN1) is an endocytic accessory protein that interacts with EPS15 (the α subunit of the clathrin adaptor AP2), clathrin, and other accessory proteins, and contributes to the mechanism of clathrin-vesicle-dependent endocytosis. Human EPS1 protein contains an epsin N-terminal homology (ENTH) region and a single clathrin-binding (LVDLD) motif. EPN1 localizes to the leading edge of a vesicular coated pit where the membrane is being actively bent.

CHROMOSOMAL LOCATION

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

SOURCE

epsin 1 (R-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of epsin 1 of rat 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-8673 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

epsin 1 (R-20) 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 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), indirect flow cytometry (1 µg per 1 x 10^6 cells) using PE (sc-3743) and FITC (sc-2024)-conjugated donkey anti-goat IgG and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

epsin 1 (R-20) is also recommended for detection of epsin 1 in additional species, including canine and bovine.

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: Jurkat whole cell lysate: sc-2204, epsin 1 (h): 293T Lysate: sc-115661 or A-431 whole cell lysate: sc-2201.

STORAGE

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

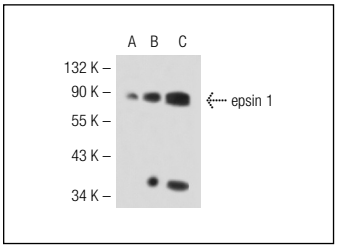
PROTOCOLS

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

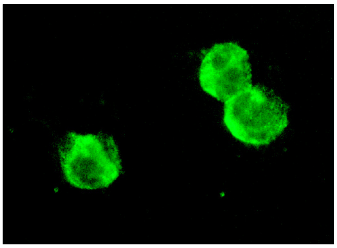
RESEARCH USE

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

DATA



epsin 1 (R-20): sc-8673. 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 (R-20): sc-8673. Immunofluorescence staining of methanol-fixed Jurkat cells showing cytoplasmic staining.

SELECT PRODUCT CITATIONS

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2. Regan-Klapisz, E., et al. 2005. Ubiquilin recruits Eps15 into ubiquitin-rich cytoplasmic aggregates via a UIM-UBL interaction. J. Cell Sci. 118: 4437-4450.
3. Duncan, L.M., et al. 2006. Lysine-63-linked ubiquitination is required for endolysosomal degradation of class I molecules. EMBO J. 25: 1635-1645.
4. Barriere, H., et al. 2006. Molecular basis of oligoubiquitin-dependent internalization of membrane proteins in Mammalian cells. Traffic 7: 282-297.
5. Chen, C. and Zhuang, X. 2008. Epsin 1 is a cargo-specific adaptor for the clathrin-mediated endocytosis of the influenza virus. Proc. Natl. Acad. Sci. USA 105: 11790-11795.
6. Rudinskiy, N., et al. 2009. Calpain hydrolysis of α- and β2-adaptins decreases clathrin-dependent endocytosis and may promote neurodegeneration. J. Biol. Chem. 284: 12447-12458.
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8. Shen, H., et al. 2011. Constitutive activated Cdc42-associated kinase (Ack) phosphorylation at arrested endocytic clathrin-coated pits of cells that lack dynamin. Mol. Biol. Cell 22: 493-502.
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