SANTA CRUZ BIOTECHNOLOGY, INC.

epsin 1 (C-11): sc-55556



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.

CHROMOSOMAL LOCATION

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

SOURCE

epsin 1 (C-11) is a mouse monoclonal antibody raised against amino acids 311-440 of epsin 1 of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

epsin 1 (C-11) is available conjugated to agarose (sc-55556 AC), 500 μ g/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-55556 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-55556 PE), fluorescein (sc-55556 AF1C), Alexa Fluor* 488 (sc-55556 AF488), Alexa Fluor* 546 (sc-55556 AF546), Alexa Fluor* 594 (sc-55556 AF594) or Alexa Fluor* 647 (sc-55556 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor* 680 (sc-55556 AF680) or Alexa Fluor* 790 (sc-55556 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

epsin 1 (C-11) is recommended for detection of epsin 1 of mouse, rat and human origin by Western Blotting (starting dilution 1:2500, dilution range 1:2500-1:5000), 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), 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: Jurkat whole cell lysate: sc-2204, Hep G2 cell lysate: sc-2227 or c4 whole cell lysate: sc-364186.

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 MarkerTM Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 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 m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA





epsin 1 (C-11) HRP: sc-55556 HRP. Direct western blot analysis of epsin 1 expression in K-562 (A), Hep G2 (B), KNRK (C), Jurkat (D), NIH/3T3 (E) and c4 (F) whole cell lysates

epsin 1 (C-11): sc-55556. Immunoperoxidase staining of formalin fixed, paraffin-embedded human rectum tissue showing cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

- Lin, A.E. and Guttman, J.A. 2012. Lack of Tir ubiquitylation contributes to enteropathogenic *E. coli* remaining extracellular during nonphagocytic cell infections. Anat. Rec. 295: 1230-1238.
- Garvalov, B.K., et al. 2014. PHD3 regulates EGFR internalization and signalling in tumours. Nat. Commun. 5: 5577.
- Günther, S.C., et al. 2022. Proteomic identification of potential target proteins of cathepsin W for its development as a drug target for influenza. Microbiol. Spectr. 10: e0092122.
- Singla, B., et al. 2023. CD47 Activation by thrombospondin-1 in lymphatic endothelial cells suppresses lymphangiogenesis and promotes atherosclerosis. Arterioscler. Thromb. Vasc. Biol. 43: 1234-1250.

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 for detailed protocols and support products.