

# epsin 1 (C-11): sc-55556



The Power to Question

## BACKGROUND

epsin 1 (EPN1) is an endocytic accessory protein with significant similarity to the *Xenopus* mitotic phosphoprotein MP90. Epsin 1 interacts with Eps15 (the  $\alpha$  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  $\mu$ g IgG<sub>2a</sub> 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  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-55556 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-55556 PE), fluorescein (sc-55556 FITC), Alexa Fluor<sup>®</sup> 488 (sc-55556 AF488), Alexa Fluor<sup>®</sup> 546 (sc-55556 AF546), Alexa Fluor<sup>®</sup> 594 (sc-55556 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-55556 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-55556 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-55556 AF790), 200  $\mu$ 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  $\mu$ g per 100-500  $\mu$ 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.

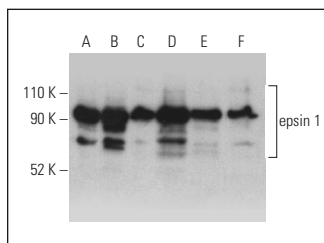
Molecular Weight of epsin 1: 94 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, Hep G2 cell lysate: sc-2227 or c4 whole cell lysate: sc-364186.

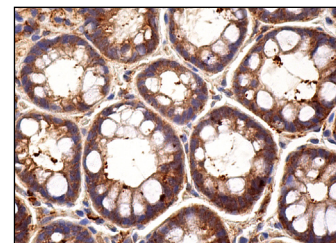
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> 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 $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG $\kappa$  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.

## 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](http://www.scbt.com) for detailed protocols and support products.