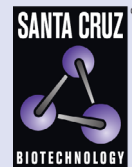


# epsin 4 (C-4): sc-518242



The Power to Question.

## BACKGROUND

The mechanism by which receptor tyrosine kinases (RTKs) modulate cellular physiology in response to stimuli is critical to the understanding of growth regulation. Errors in RTK signaling pathways may result in cellular transformation and, ultimately, in cancer. Two novel EGF receptor substrates function in this pathway, designated EGF-receptor pathway substrates 8 and 15, or Eps8 and Eps15. Epsin is a binding partner to Eps15. Both epsin and Eps15 have a ubiquitous tissue distribution but are concentrated in presynaptic nerve terminals specialized for the Clathrin-mediated endocytosis of synaptic vesicles. Disruption of epsin function blocks Clathrin-mediated endocytosis. Epsin, along with its binding partner Eps15, is proposed to be involved in the assistance of Clathrin coat rearrangement during Clathrin coated pit invagination. The epsin 4 gene is located on chromosome 5q33.3, and encodes for a clathrin-associated member of the epsin family that has a role in transport and stability of neurotransmitter vesicles at the synapses and within neurons. Abnormalities in the structure, function, or expression of epsin 4 are linked to schizophrenia susceptibility.

## REFERENCES

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2. 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.
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4. Hyun, T.S., et al. 2004. HIP1 and HIP1r stabilize recep via epsin N-terminal homology domains. *J. Biol. Chem.* 279: 14294-14306.
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7. Liou, Y.J., et al. 2006. Genetic analysis of the human ENTH (epsin 4) gene and schizophrenia. *Schizophr. Res.* 84: 236-243.
8. Tang, R.Q., et al. 2006. Family-based association study of epsin 4 and schizophrenia. *Mol. Psychiatry* 11: 395-399.

## CHROMOSOMAL LOCATION

Genetic locus: CLINT1 (human) mapping to 5q33.3.

## SOURCE

epsin 4 (C-4) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 163-186 of epsin 4 of human origin.

## STORAGE

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

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

epsin 4 (C-4) is available conjugated to agarose (sc-518242 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-518242 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-518242 PE), fluorescein (sc-518242 FITC), Alexa Fluor® 488 (sc-518242 AF488), Alexa Fluor® 546 (sc-518242 AF546), Alexa Fluor® 594 (sc-518242 AF594) or Alexa Fluor® 647 (sc-518242 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-518242 AF680) or Alexa Fluor® 790 (sc-518242 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

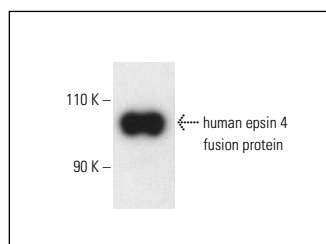
Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

## APPLICATIONS

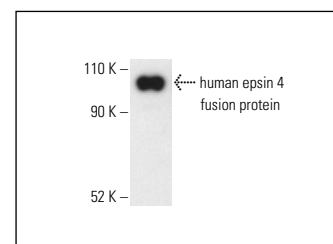
epsin 4 (C-4) is recommended for detection of epsin 4 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for epsin 4 siRNA (h): sc-105334, epsin 4 shRNA Plasmid (h): sc-105334-SH and epsin 4 shRNA (h) Lentiviral Particles: sc-105334-V.

## DATA



epsin 4 (C-4): sc-518242. Western blot analysis of human recombinant epsin 4 fusion protein. Detection reagent used: m-IgG<sub>1</sub> BP-HRP: sc-525408.



epsin 4 (C-4): sc-518242. Western blot analysis of human recombinant epsin 4 fusion protein. Detection reagent used: m-IgG Fc BP-HRP: sc-525409.

## 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.