

SSH3 (M-219): sc-292042

BACKGROUND

SSH3 (slingshot homolog 3), also known as SSH3L, is a 659 amino acid protein that localizes to both the nucleus and cytoplasm and is a human homolog of the *Drosophila* slingshot (*ssh*) protein. Functioning as a protein phosphatase, SSH3 is thought to regulate actin filament dynamics through its control of proteins such as ADF (actin-depolymerizing factor) and cofilin. The ADF/cofilin family consists of stimulus-responsive mediators that rapidly depolymerize and disassemble F-actin in a stoichiometric manner and can be deactivated by a variety of kinases. SSH3 acts to catalytically dephosphorylate the ADF/cofilin proteins, thereby reactivating them and allowing them to resume their control over actin dynamics. SSH3 contains one tyrosine-protein phosphatase domain and is expressed as five isoforms due to alternative splicing events.

REFERENCES

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- Niwa, R., et al. 2002. Control of actin reorganization by slingshot, a family of phosphatases that dephosphorylate ADF/cofilin. *Cell* 108: 233-246.
- Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 606780. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Ohta, Y., et al. 2003. Differential activities, subcellular distribution and tissue expression patterns of three members of slingshot family phosphatases that dephosphorylate cofilin. *Genes Cells* 8: 811-824.
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CHROMOSOMAL LOCATION

Genetic locus: SSH3 (human) mapping to 11q13.2; Ssh3 (mouse) mapping to 19 A.

SOURCE

SSH3 (M-219) is a rabbit polyclonal antibody raised against amino acids 431-649 mapping at the C-terminus of SSH3 of mouse origin.

PRODUCT

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

STORAGE

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

APPLICATIONS

SSH3 (M-219) is recommended for detection of SSH3 of mouse, rat and, to a lesser extent, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for SSH3 siRNA (h): sc-96338, SSH3 siRNA (m): sc-153844, SSH3 shRNA Plasmid (h): sc-96338-SH, SSH3 shRNA Plasmid (m): sc-153844-SH, SSH3 shRNA (h) Lentiviral Particles: sc-96338-V and SSH3 shRNA (m) Lentiviral Particles: sc-153844-V.

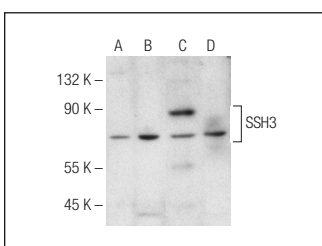
Molecular Weight of SSH3: 73 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, mouse spleen extract: sc-2391 or mouse colon extract: sc-364238.

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.

DATA



SSH3 (M-219): sc-292042. Western blot analysis of SSH3 expression in HeLa (A), NIH/3T3 (B) whole cell lysates and mouse spleen (C) and mouse colon (D) tissue extracts.

RESEARCH USE

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

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Try **SSH3 (B-7): sc-390058** or **SSH3 (G-2): sc-374560**, our highly recommended monoclonal alternatives to SSH3 (M-219).