

STAMPB (H-3): sc-166565

BACKGROUND

STAMPB (STAM binding protein), also known as AMSH, is a 424 amino acid protein belonging to the peptidase M67C family. Ubiquitously expressed, STAMPB functions as a zinc metalloprotease that specifically cleaves Lys 63-linked polyubiquitin chains. STAMPB is able to oppose the ubiquitin-dependent sorting of receptors to lysosomes. STAMPB may play a role in signal transduction for cell growth and Myc induction mediated by IL-2 and GM-CSF. It is suggested that STAMPB potentiates BMP (bone morphogenetic protein) signaling by antagonizing the inhibitory action of Smad6 and Smad7. STAMPB consists of the JAMM motif, which is essential for the protease activity, and is inhibited by N-ethylmaleimide.

REFERENCES

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- McCullough, J., et al. 2004. AMSH is an endosome-associated ubiquitin isopeptidase. *J. Cell Biol.* 166: 487-492.
- Li, H., et al. 2004. An RNF11: Smurf2 complex mediates ubiquitination of the AMSH protein. *Oncogene* 23: 1801-1808.
- Herrera-Vigener, F., et al. 2006. AMSH regulates calcium-sensing receptor signaling through direct interactions. *Biochem. Biophys. Res. Commun.* 347: 924-930.
- McCullough, J., et al. 2006. Activation of the endosome-associated ubiquitin isopeptidase AMSH by STAM, a component of the multivesicular body-sorting machinery. *Curr. Biol.* 16: 160-165.
- Nakamura, M., et al. 2006. Clathrin anchors deubiquitinating enzymes, AMSH and AMSH-like protein, on early endosomes. *Genes Cells* 11: 593-606.
- Agromayor, M., et al. 2006. Interaction of AMSH with ESCRT-III and deubiquitination of endosomal cargo. *J. Biol. Chem.* 281: 23083-23091.
- Ma, Y.M., et al. 2007. Targeting of AMSH to endosomes is required for epidermal growth factor receptor degradation. *J. Biol. Chem.* 282: 9805-9812.

CHROMOSOMAL LOCATION

Genetic locus: STAMPB (human) mapping to 2p13.1.

SOURCE

STAMPB (H-3) is a mouse monoclonal antibody raised against amino acids 161-270 mapping within an internal region of STAMPB of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain 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

STAMPB (H-3) is recommended for detection of STAMPB 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), 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 STAMPB siRNA (h): sc-94512, STAMPB shRNA Plasmid (h): sc-94512-SH and STAMPB shRNA (h) Lentiviral Particles: sc-94512-V.

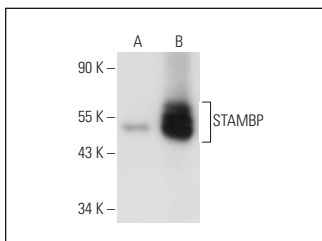
Molecular Weight of STAMPB: 50 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, HeLa whole cell lysate: sc-2200 or STAMPB (h2): 293T Lysate: sc-159791.

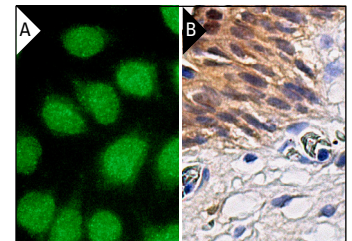
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ 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-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



STAMPB (H-3): sc-166565. Western blot analysis of STAMPB expression in non-transfected: sc-117752 (A) and human STAMPB transfected: sc-159791 (B) 293T whole cell lysates.



STAMPB (H-3): sc-166565. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human urinary bladder tissue showing cytoplasmic and nuclear staining of urothelial cells (B).

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.