

STAMPB (E-17): sc-109051

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

- Itoh, F., et al. 2001. Promoting bone morphogenetic protein signaling through negative regulation of inhibitory Smads. *EMBO J.* 20: 4132-4142.
- 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; Stampb (mouse) mapping to 6 C3.

SOURCE

STAMPB (E-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of STAMPB of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-109051 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

STAMPB (E-17) is recommended for detection of STAMPB of human and, to a lesser extent, mouse 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).

STAMPB (E-17) is also recommended for detection of STAMPB in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for STAMPB siRNA (h): sc-94512, STAMPB siRNA (m): sc-153875, STAMPB shRNA Plasmid (h): sc-94512-SH, STAMPB shRNA Plasmid (m): sc-153875-SH, STAMPB shRNA (h) Lentiviral Particles: sc-94512-V and STAMPB shRNA (m) Lentiviral Particles: sc-153875-V.

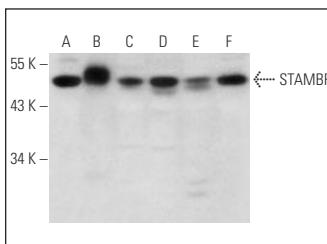
Molecular Weight of STAMPB: 50 kDa.

Positive Controls: STAMPB (h): 293T Lysate: sc-117052, HeLa whole cell lysate: sc-2200 or Jurkat Whole Cell Lysate: sc-2204.

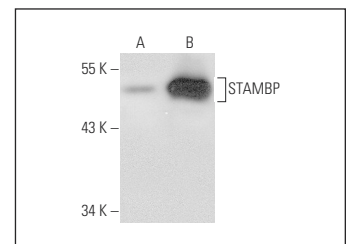
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



STAMPB (E-17): sc-109051. Western blot analysis of STAMPB expression in non-transfected 293T: sc-117752 (A), mouse STAMPB transfected 293T: sc-123804 (B), HeLa (C), A549 (D), MCF7 (E) and Jurkat (F) whole cell lysates.



STAMPB (E-17): sc-109051. Western blot analysis of STAMPB expression in non-transfected: sc-117752 (A) and human STAMPB transfected: sc-117052 (B) 293T whole cell lysates.

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.