

STAMBPL1 (K-15): sc-163384

BACKGROUND

STAMBPL1 (STAM-binding protein-like 1), also known as AMSH-FP, AMSH-LP (associated molecule with the SH3 domain of STAM like protein) or ALM α , is a 436 amino acid protein that belongs to the peptidase M67C family, contains one MPN domain and a JAMM motif that is essential for protease activity. Existing as two alternatively spliced isoforms, STAMBPL1 is a ubiquitously expressed protein that binds two zinc ions per subunit and acts as a zinc metalloprotease that specifically cleaves Lys-63-linked polyubiquitin chains. The gene that encodes STAMBPL1 maps to human chromosome 10q23.31. Chromosome 10 contains over 800 genes and 135 million nucleotides, making up nearly 4.5% of the human genome. PTEN is an important tumor suppressor gene located on chromosome 10 and, when defective, causes a genetic predisposition to cancer development known as Cowden syndrome. The chromosome 10 encoded gene ERCC6 is important for DNA repair and is linked to Cockayne syndrome which is characterized by extreme photosensitivity and premature aging. Tetrahydrobiopterin deficiency and a number of syndromes involving defective skull and facial bone fusion are also linked to chromosome 10.

REFERENCES

1. Kikuchi, K., et al. 2003. Identification of AMSH-LP containing a Jab1/MPN domain metalloenzyme motif. *Biochem. Biophys. Res. Commun.* 306: 637-643.
2. Teresi, R.E., et al. 2007. Cowden syndrome-affected patients with PTEN promoter mutations demonstrate abnormal protein translation. *Am. J. Hum. Genet.* 81: 756-767.
3. Cho, M.Y., et al. 2008. First report of ovarian dysgerminoma in Cowden syndrome with germline PTEN mutation and PTEN-related 10q loss of tumor heterozygosity. *Am. J. Surg. Pathol.* 32: 1258-1264.
4. Sato, Y., et al. 2008. Structural basis for specific cleavage of Lys 63-linked polyubiquitin chains. *Nature* 455: 358-362.
5. Yin, Y., et al. 2008. PTEN: a new guardian of the genome. *Oncogene* 27: 5443-5453.
6. Online Mendelian Inheritance in Man, OMIM[™]. 2008. Johns Hopkins University, Baltimore, MD. MIM Number: 612352. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
7. Fukui, S. 2009. Mechanism for de-ubiquitination of K 63-linked polyubiquitin chains. *Seikagaku* 81: 815-819.
8. Laugel, V., et al. 2010. Mutation update for the CSB/ERCC6 and CSA/ERCC8 genes involved in Cockayne syndrome. *Hum. Mutat.* 31: 113-126.

CHROMOSOMAL LOCATION

Genetic locus: STAMBPL1 (human) mapping to 10q23.31; Stambpl1 (mouse) mapping to 19 C1.

SOURCE

STAMBPL1 (K-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of STAMBPL1 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-163384 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

STAMBPL1 (K-15) is recommended for detection of STAMBPL1 of mouse and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with STAMBPL1.

STAMBPL1 (K-15) is also recommended for detection of STAMBPL1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for STAMBPL1 siRNA (h): sc-90796, STAMBPL1 siRNA (m): sc-153876, STAMBPL1 shRNA Plasmid (h): sc-90796-SH, STAMBPL1 shRNA Plasmid (m): sc-153876-SH, STAMBPL1 shRNA (h) Lentiviral Particles: sc-90796-V and STAMBPL1 shRNA (m) Lentiviral Particles: sc-153876-V.

Molecular Weight of STAMBPL1 isoforms: 50/52 kDa.

Positive Controls: 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) 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.

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.



Try **STAMBPL1 (C-11): sc-376526**, our highly recommended monoclonal alternative to STAMBPL1 (K-15).