

STAMBPL1 (C-11): sc-376526

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.

CHROMOSOMAL LOCATION

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

SOURCE

STAMBPL1 (C-11) is a mouse monoclonal antibody raised against amino acids 171-280 mapping within an internal region of STAMBPL1 of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STAMBPL1 (C-11) is available conjugated to agarose (sc-376526 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376526 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376526 PE), fluorescein (sc-376526 FITC), Alexa Fluor[®] 488 (sc-376526 AF488), Alexa Fluor[®] 546 (sc-376526 AF546), Alexa Fluor[®] 594 (sc-376526 AF594) or Alexa Fluor[®] 647 (sc-376526 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-376526 AF680) or Alexa Fluor[®] 790 (sc-376526 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

STAMBPL1 (C-11) is recommended for detection of STAMBPL1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 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.

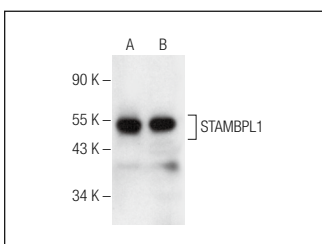
Molecular Weight of STAMBPL1 isoforms: 50/52 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, Jurkat nuclear extract: sc-2132 or MCF7 whole cell lysate: sc-2206.

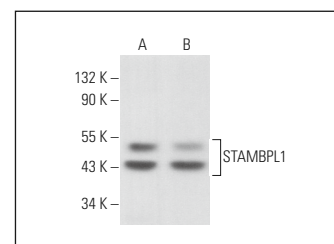
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG_κ BP-HRP: sc-516102 or m-IgG_κ 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-IgG_κ BP-FITC: sc-516140 or m-IgG_κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA



STAMBPL1 (C-11): sc-376526. Western blot analysis of STAMBPL1 expression in Jurkat (A) and HeLa (B) nuclear extracts.



STAMBPL1 (C-11): sc-376526. Western blot analysis of STAMBPL1 expression in MCF7 (A) and MIA PaCa-2 (B) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Wang, D., et al. 2022. E3 ligase RNF167 and deubiquitinase STAMBPL1 modulate mTOR and cancer progression. *Mol. Cell* 82: 770-784.e9.

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.