

MBTPS1 Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP50769**Specification**

MBTPS1 Antibody - Product Information

Application	WB
Primary Accession	Q14703
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	118 KDa
Antigen Region	215-241

MBTPS1 Antibody - Additional Information**Gene ID** 8720**Other Names**

Membrane-bound transcription factor site-1 protease, Endopeptidase S1P, Subtilisin/kexin-isozyme 1, SKI-1, MBTPS1, KIAA0091, S1P, SKI1

Dilution

WB~~ 1:1000

Format

Rabbit IgG in phosphate buffered saline (without Mg²⁺ and Ca²⁺), pH 7.4, 150mM NaCl, 0.09% (W/V) sodium azide and 50% glycerol.

Storage Conditions

-20°C

MBTPS1 Antibody - Protein Information**Name** MBTPS1 ([HGNC:15456](#))**Function**

Serine protease that cleaves after hydrophobic or small residues, provided that Arg or Lys is in position P4: known substrates include SREBF1/SREBP1, SREBF2/SREBP2, BDNF, GNPTAB, ATF6, ATF6B and FAM20C (PubMed: [10644685](http://www.uniprot.org/citations/10644685), PubMed: [12782636](http://www.uniprot.org/citations/12782636), PubMed: [21719679](http://www.uniprot.org/citations/21719679), PubMed: [34349020](http://www.uniprot.org/citations/34349020)). Cleaves substrates after Arg-Ser-Val-Leu (SREBP2), Arg-His-Leu-Leu (ATF6), Arg-Gly-Leu-Thr (BDNF) and its own propeptide after Arg-Arg-Leu-Leu (PubMed: [10644685](http://www.uniprot.org/citations/10644685), PubMed: [21719679](http://www.uniprot.org/citations/21719679)). Catalyzes the first step in the proteolytic activation of the sterol regulatory element-binding

proteins (SREBPs) SREBF1/SREBP1 and SREBF2/SREBP2 (PubMed:12782636). Also mediates the first step in the proteolytic activation of the cyclic AMP-dependent transcription factor ATF-6 (ATF6 and ATF6B) (PubMed:12782636). Mediates the protein cleavage of GNPTAB into subunit alpha and beta, thereby participating in biogenesis of lysosomes (PubMed:21719679). Cleaves the propeptide from FAM20C which is required for FAM20C secretion from the Golgi apparatus membrane and for enhancement of FAM20C kinase activity, promoting osteoblast differentiation and biomineralization (PubMed:34349020). Involved in the regulation of M6P-dependent Golgi-to-lysosome trafficking of lysosomal enzymes (PubMed:21719679, PubMed:30046013). It is required for the activation of CREB3L2/BBF2H7, a transcriptional activator of MIA3/TANGO and other genes controlling mega vesicle formation (PubMed:30046013). Therefore, it plays a key role in the regulation of mega vesicle-mediated collagen trafficking (PubMed:30046013). In astrocytes and osteoblasts, upon DNA damage and ER stress, mediates the first step of the regulated intramembrane proteolytic activation of the transcription factor CREB3L1, leading to the inhibition of cell-cycle progression (PubMed:16417584).

Cellular Location

Endoplasmic reticulum membrane; Single-pass type I membrane protein. Golgi apparatus membrane; Single-pass type I membrane protein. Note=May sort to other organelles, including lysosomal and/or endosomal compartments

Tissue Location

Widely expressed..

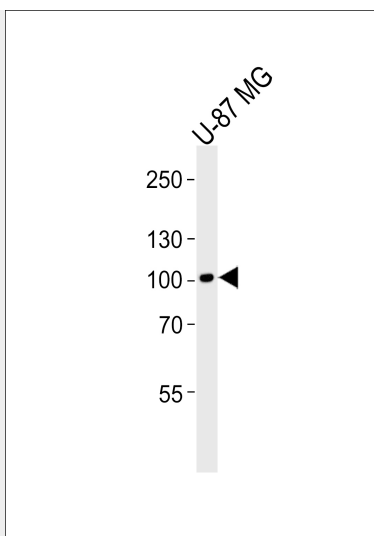
MBTPS1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

MBTPS1 Antibody - Images





Western blot analysis of lysate from U-87 MG cell line, using MBTPS1 Antibody (AP50769). AP50769 was diluted at 1:1000. A goat anti-rabbit IgG H&L (HRP) at 1:5000 dilution was used as the secondary antibody. Lysate at 35 µg.

MBTPS1 Antibody - Background

Catalyzes the first step in the proteolytic activation of the sterol regulatory element-binding proteins (SREBPs). Other known substrates are BDNF and ATF6. Cleaves after hydrophobic or small residues, provided that Arg or Lys is in position P4. Cleaves known substrates after Arg-Ser-Val-Leu (SERBP-2), Arg-His-Leu-Leu (ATF6), Arg-Gly-Leu-Thr (BDNF) and its own propeptide after Arg-Arg-Leu-Leu.

MBTPS1 Antibody - References

Nakajima T., et al. J. Hum. Genet. 45:212-217(2000).
Nagase T., et al. DNA Res. 2:37-43(1995).
Bechtel S., et al. BMC Genomics 8:399-399(2007).
Toure B.B., et al. J. Biol. Chem. 275:2349-2358(2000).
Seidah N.G., et al. Proc. Natl. Acad. Sci. U.S.A. 96:1321-1326(1999).