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MBTPS2 Antibody (N-term) Blocking peptide

Synthetic peptide
Catalog # BP12972a

Specification

MBTPS2 Antibody (N-term) Blocking peptide - Product Information

Primary Accession O43462

MBTPS2 Antibody (N-term) Blocking peptide - Additional Information

Gene ID 51360

Other Names
Membrane-bound transcription factor site-2 protease, Endopeptidase S2P, Sterol regulatory element-binding proteins intramembrane protease, SREBPs intramembrane protease, MBTPS2, S2P

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

MBTPS2 Antibody (N-term) Blocking peptide - Protein Information

Name MBTPS2 {ECO:0000303|PubMed:19361614, ECO:0000312|HGNC:HGNC:15455}

Function
Zinc metalloprotease that mediates intramembrane proteolysis of proteins such as ATF6, ATF6B, SREBF1/SREBP1 and SREBF2/SREBP2 (PubMed:11163209, PubMed:10805775). Catalyzes the second step in the proteolytic activation of the sterol regulatory element-binding proteins (SREBPs) SREBF1/SREBP1 and SREBF2/SREBP2: cleaves SREBPs within the first transmembrane segment, thereby releasing the N- terminal segment with a portion of the transmembrane segment attached (PubMed:10805775, PubMed:27380894, PubMed:9659902). Mature N-terminal SREBP fragments shuttle to the nucleus and activate gene transcription (PubMed:10805775, PubMed:27380894, PubMed:9659902). Also mediates the second step in the proteolytic activation of the cyclic AMP-dependent transcription factor ATF-6 (ATF6 and ATF6B) (PubMed:<a

href="http://www.uniprot.org/citations/11163209" target="_blank">11163209). Involved in intramembrane proteolysis during bone formation (PubMed:27380894). In astrocytes and osteoblasts, upon DNA damage and ER stress, mediates the second step of the regulated intramembrane proteolytic activation of the transcription factor CREB3L1, leading to the inhibition of cell- cycle progression (PubMed:16417584).

Cellular Location
Membrane; Multi- pass membrane protein. Cytoplasm. Golgi apparatus membrane; Multi-pass membrane protein

Tissue Location
Expressed in heart, brain, placenta, lung, liver, muscle, kidney and pancreas.

MBTPS2 Antibody (N-term) Blocking peptide - Protocols

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

- Blocking Peptides

MBTPS2 Antibody (N-term) Blocking peptide - Images

MBTPS2 Antibody (N-term) Blocking peptide - Background

This gene encodes a intramembrane zinc metalloprotease,which is essential in development. This protease functions in thesignal protein activation involved in sterol control oftranscription and the ER stress response. Mutations in this genehave been associated with ichthyosis follicularis with atrichia andphotophobia (IFAP syndrome); IFAP syndrome has been quantitativelylinked to a reduction in cholesterol homeostasis and ER stressresponse.

MBTPS2 Antibody (N-term) Blocking peptide - References

Ming, A., et al. Pediatr Dermatol 26(4):427-431(2009)Oeffner, F., et al. Am. J. Hum. Genet. 84(4):459-467(2009)Lu, Y., et al. J. Lipid Res. 49(12):2582-2589(2008)Shen, J., et al. J. Biol. Chem. 279(41):43046-43051(2004)Lee, K., et al. Genes Dev. 16(4):452-466(2002)