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SMPD1 Antibody (C-term) Blocking peptide
Synthetic peptide
Catalog # BP12227b

Specification

SMPD1 Antibody (C-term) Blocking peptide - Product Information

Primary Accession P17405

SMPD1 Antibody (C-term) Blocking peptide - Additional Information

Gene ID 6609

Other Names
Sphingomyelin phosphodiesterase, Acid sphingomyelinase, aSMase, SMPD1, ASM

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.

SMPD1 Antibody (C-term) Blocking peptide - Protein Information

Name SMPD1 (HGNC:11120)

Function
Converts sphingomyelin to ceramide (PubMed:1840600, PubMed:18815062, PubMed:27659707, PubMed:25920558, PubMed:25339683, PubMed:33163980, PubMed:12563314). Exists as two enzymatic forms that arise from alternative trafficking of a single protein precursor, one that is targeted to the endolysosomal compartment, whereas the other is released extracellularly (PubMed:21098024, PubMed:9660788, PubMed:20807762). However, in response to various forms of stress, lysosomal exocytosis may represent a major source of the secretory form (PubMed:20530211, PubMed:12563314, PubMed:20807762, PubMed:<a href="http://www.uniprot.org/citations/9393854"

target="_blank">9393854, PubMed:22573858).

Cellular Location
Lysosome. Lipid droplet. Secreted. Note=The secreted form is induced in a time- and dose-dependent by IL1B and TNF as well as stress and viral infection. This increase of the secreted form seems to be due to exocytosis of the lysosomal form and is Ca(2+)-dependent (PubMed:20807762, PubMed:22573858, PubMed:20530211). Secretion is dependent of phosphorylation at Ser-510 (PubMed:17303575). Secretion is induced by inflammatory mediators such as IL1B, IFNG or TNF as well as infection with bacteria and viruses (PubMed:12563314, PubMed:20807762)

SMPD1 Antibody (C-term) Blocking peptide - Protocols

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

- Blocking Peptides

SMPD1 Antibody (C-term) Blocking peptide - Images

SMPD1 Antibody (C-term) Blocking peptide - Background

The protein encoded by this gene is a lysosomal acidsphingomyelinase that converts sphingomyelin to ceramide. Theencoded protein also has phospholipase C activity. Defects in thisgene are a cause of Niemann-Pick disease type A (NPA) andNiemann-Pick disease type B (NPB). Multiple transcript variantsencoding different isoforms have been identified. [provided byRefSeq].

SMPD1 Antibody (C-term) Blocking peptide - References

Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)Desnick, J.P., et al. Mol. Med. 16 (7-8), 316-321 (2010) :Talmud, P.J., et al. Am. J. Hum. Genet. 85(5):628-642(2009)Sugiyama, N., et al. Mol. Cell Proteomics 6(6):1103-1109(2007)Sleat, D.E., et al. Mol. Cell Proteomics 5(4):686-701(2006)