

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

SMPD1 Antibody (C-term) Blocking peptide - Product InformationPrimary 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: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. The encoded protein also has phospholipase C activity. Defects in this gene are a cause of Niemann-Pick disease type A (NPA) and Niemann-Pick disease type B (NPB). Multiple transcript variants encoding different isoforms have been identified. [provided by RefSeq].

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)