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ASAH2 Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP17664b

Specification

ASAH2 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession Q9NR71

ASAH2 Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 56624

Other Names
Neutral ceramidase, N-CDase, NCDase, Acylsphingosine deacylase 2, BCDase, LCDase, hCD, N-acylsphingosine amidohydrolase 2, Non-lysosomal ceramidase, Neutral ceramidase soluble form, ASAH2, HNAC1

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.

ASAH2 Antibody (C-term) Blocking Peptide - Protein Information

Name ASAH2

Synonyms HNAC1

Function
Plasma membrane ceramidase that hydrolyzes sphingolipid ceramides into sphingosine and free fatty acids at neutral pH (PubMed:10781606, PubMed:16229686, PubMed:26190575). Ceramides, sphingosine, and its phosphorylated form sphingosine-1-phosphate are bioactive lipids that mediate cellular signaling pathways regulating several biological processes including cell proliferation, apoptosis and differentiation (PubMed:15946935, PubMed:19345744, PubMed:24798654). Also catalyzes the reverse reaction allowing the synthesis of ceramides from fatty acids and sphingosine (PubMed:11278489, PubMed:17475390). Together with sphingomyelinase, participates in the production

of sphingosine and sphingosine-1- phosphate from the degradation of sphingomyelin, a sphingolipid enriched in the plasma membrane of cells (PubMed:16061940). Also participates in the hydrolysis of ceramides from the extracellular milieu allowing the production of sphingosine-1-phosphate inside and outside cells (By similarity). This is the case for instance with the digestion of dietary sphingolipids in the intestinal tract (By similarity).

Cellular Location
[Neutral ceramidase]: Cell membrane; Single-pass type II membrane protein {ECO:0000250|UniProtKB:Q91XT9}. Membrane raft {ECO:0000250|UniProtKB:Q9JHE3}; Single-pass type II membrane protein {ECO:0000250|UniProtKB:Q91XT9}. Membrane, caveola {ECO:0000250|UniProtKB:Q9JHE3}; Single-pass type II membrane protein {ECO:0000250|UniProtKB:Q91XT9}. Golgi apparatus membrane; Single-pass type II membrane protein {ECO:0000250|UniProtKB:Q91XT9}. Mitochondrion. Secreted, extracellular exosome. Note=Enriched in exosomes upon stimulation by cytokine (PubMed:24798654). Enriched in caveolae and lipid rafts (By similarity). The localization to the mitochondrion could not be confirmed (PubMed:15845354) {ECO:0000250|UniProtKB:Q9JHE3, ECO:0000269|PubMed:15845354, ECO:0000269|PubMed:24798654}

Tissue Location
Primarily expressed in intestine (PubMed:17334805). Ubiquitously expressed with higher levels in kidney, skeletal muscle and heart (PubMed:10781606). The ubiquitous expression observed for ASAH2 might be an experimental artifact due to the paralog ASAH2B (PubMed:17334805).

ASAH2 Antibody (C-term) Blocking Peptide - Protocols

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

- Blocking Peptides

ASAH2 Antibody (C-term) Blocking Peptide - Images

ASAH2 Antibody (C-term) Blocking Peptide - Background

Ceramidases (EC 3.5.1.23), such as ASAH2, catalyzehydrolysis of the N-acyl linkage of ceramide, a second messenger ina variety of cellular events, to produce sphingosine. Sphingosineexerts both mitogenic and apoptosis-inducing activities, and itsphosphorylated form functions as an intra- and intercellular secondmessenger (see MIM 603730) (Mitsutake et al., 2001 [PubMed11328816]).

ASAH2 Antibody (C-term) Blocking Peptide - References

Uchida, Y., et al. J. Invest. Dermatol. 130(10):2472-2480(2010)Hong, K.K., et al. J. Korean Med. Sci. 22(5):862-867(2007)Ohlsson, L., et al. Biochimie 89(8):950-960(2007)Avramopoulos, D., et al. Neurogenetics 8(2):111-120(2007)Galadari, S., et al. Biochem. J. 393 (PT 3), 687-695 (2006) :