

ASAH1 / Acid Ceramidase Antibody (clone 1A7)
Mouse Monoclonal Antibody
Catalog # ALS14312

Specification

ASAH1 / Acid Ceramidase Antibody (clone 1A7) - Product Information

Application	WB
Primary Accession	O13510
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Calculated MW	45kDa KDa

ASAH1 / Acid Ceramidase Antibody (clone 1A7) - Additional Information

Gene ID 427

Other Names

Acid ceramidase, AC, ACDase, Acid CDase, 3.5.1.23, Acylsphingosine deacylase, N-acylsphingosine amidohydrolase, Putative 32 kDa heart protein, PHP32, Acid ceramidase subunit alpha, Acid ceramidase subunit beta, ASAH1, ASAH

Target/Specificity

Human ASAH1

Reconstitution & Storage

Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

Precautions

ASAH1 / Acid Ceramidase Antibody (clone 1A7) is for research use only and not for use in diagnostic or therapeutic procedures.

ASAH1 / Acid Ceramidase Antibody (clone 1A7) - Protein Information

Name ASAH1 ([HGNC:735](#))

Synonyms ASAH

Function

Lysosomal ceramidase that hydrolyzes sphingolipid ceramides into sphingosine and free fatty acids at acidic pH (PubMed: [10610716](http://www.uniprot.org/citations/10610716) target="_blank">10610716, PubMed: [11451951](http://www.uniprot.org/citations/11451951) target="_blank">11451951, PubMed: [15655246](http://www.uniprot.org/citations/15655246) target="_blank">15655246, PubMed: [26898341](http://www.uniprot.org/citations/26898341) target="_blank">26898341, PubMed: [36752535](http://www.uniprot.org/citations/36752535) target="_blank">36752535, PubMed: [7744740](http://www.uniprot.org/citations/7744740) target="_blank">7744740, PubMed: [7852294](http://www.uniprot.org/citations/7852294) target="_blank">7852294). 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:10610716). Has a higher catalytic efficiency towards C12- ceramides versus other ceramides (PubMed:15655246, PubMed:7744740). Also catalyzes the reverse reaction allowing the synthesis of ceramides from fatty acids and sphingosine (PubMed:12764132, PubMed:12815059). For the reverse synthetic reaction, the natural sphingosine D-erythro isomer is more efficiently utilized as a substrate compared to D- erythro-dihydrosphingosine and D-erythro-phytosphingosine, while the fatty acids with chain lengths of 12 or 14 carbons are the most efficiently used (PubMed:12764132). Has also an N-acylethanolamine hydrolase activity (PubMed:15655246). By regulating the levels of ceramides, sphingosine and sphingosine-1-phosphate in the epidermis, mediates the calcium-induced differentiation of epidermal keratinocytes (PubMed:17713573). Also indirectly regulates tumor necrosis factor/TNF- induced apoptosis (By similarity). By regulating the intracellular balance between ceramides and sphingosine, in adrenocortical cells, probably also acts as a regulator of steroidogenesis (PubMed:22261821).

Cellular Location

Lysosome. Secreted. Note=Secretion is extremely low and localization to lysosomes is mannose-6-phosphate receptor-dependent

Tissue Location

Broadly expressed with higher expression in heart.

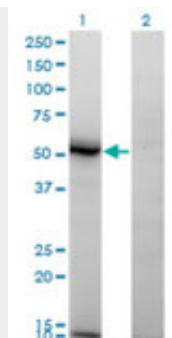
ASAH1 / Acid Ceramidase Antibody (clone 1A7) - Protocols

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](#)

ASAH1 / Acid Ceramidase Antibody (clone 1A7) - Images





Western blot of ASA1 expression in transfected 293T cell line.

ASA1 / Acid Ceramidase Antibody (clone 1A7) - Background

Hydrolyzes the sphingolipid ceramide into sphingosine and free fatty acid.

ASA1 / Acid Ceramidase Antibody (clone 1A7) - References

- Koch J.,et al.J. Biol. Chem. 271:33110-33115(1996).
- Churchill J.R.,et al.Mol. Biol. Cell 6:418-418(1995).
- Wieland S.J.,et al.Submitted (NOV-1998) to the EMBL/GenBank/DDBJ databases.
- Fan M.M.,et al.Submitted (MAY-2003) to the EMBL/GenBank/DDBJ databases.
- Zhang Z.,et al.Mol. Genet. Metab. 70:301-309(2000).