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ASAH1 / Acid Ceramidase Antibody (C-Terminus)

Rabbit Polyclonal Antibody
Catalog # ALS12653

Specification

ASAH1 / Acid Ceramidase Antibody (C-Terminus) - Product Information

Application	**IF, WB, IHC**
Primary Accession	Q13510
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**45kDa KDa**

ASAH1 / Acid Ceramidase Antibody (C-Terminus) - 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

Reconstitution & Storage
Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles. Store undiluted.

Precautions
ASAH1 / Acid Ceramidase Antibody (C-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

ASAH1 / Acid Ceramidase Antibody (C-Terminus) - 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, PubMed:7744740, PubMed:15655246, PubMed:11451951). 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:7744740, PubMed:15655246). 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

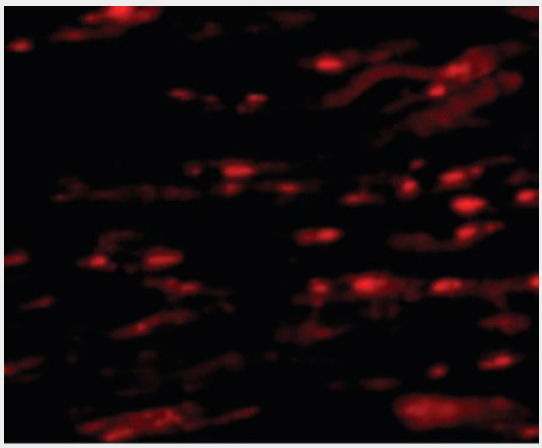
Tissue Location
Broadly expressed with higher expression in heart.

ASAH1 / Acid Ceramidase Antibody (C-Terminus) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

ASAH1 / Acid Ceramidase Antibody (C-Terminus) - Images



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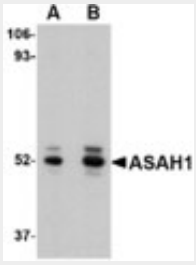
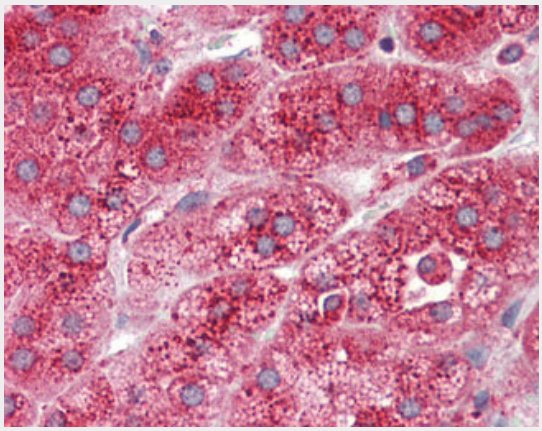
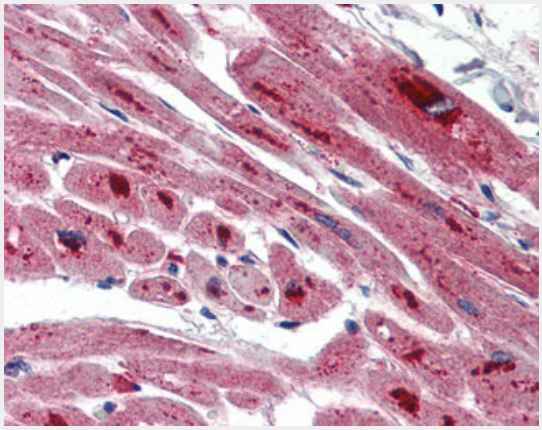
Immunofluorescence of ASAH1 in Human Heart cells with ASAH1 antibody at 20 ug/ml.



Western blot of ASAH1 in mouse heart tissue lysate with ASAH1 antibody at (A) 1 and (B) 2 ug/ml.



Anti-ASAH1 antibody IHC of human adrenal.



Anti-ASAH1 antibody IHC of human heart.

ASAH1 / Acid Ceramidase Antibody (C-Terminus) - Background

Hydrolyzes the sphingolipid ceramide into sphingosine and free fatty acid.

ASAH1 / Acid Ceramidase Antibody (C-Terminus) - References

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Zhang Z.,et al.Mol. Genet. Metab. 70:301-309(2000).