

Recombinant Human N-acylsphingosine amidohydrolase 1 Protein, His&Flag tagged

Cat. No. ASAH1-213H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human ASAH1 protein (Q13510-1) (Gln 22-Trp 395) with both His, Flag tag at the C-terminus was expressed in HEK293.
Species	Human
Source	HEK293
ProteinLength	22-395aa
Description	Lysosomal ceramidase that hydrolyzes sphingolipid ceramides into sphingosine and free fatty acids at acidic pH. 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. Has a higher catalytic efficiency towards C12-ceramides versus other ceramides. Also catalyzes the reverse reaction allowing the synthesis of ceramides from fatty acids and sphingosine. 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. Has also an N-acylethanolamine hydrolase activity. By regulating the levels of ceramides, sphingosine and sphingosine-1-phosphate in the epidermis, mediates the calcium-induced differentiation of epidermal keratinocytes. Also indirectly regulates tumor necrosis factor/TNF-induced apoptosis. By regulating the intracellular balance

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between ceramides and sphingosine, in adrenocortical cells, probably also acts as a regulator of steroidogenesis.

Tag	C-His&Flag
Molecular Mass	45.4 kDa
Endotoxin	Less than 1.0 EU/μg by the LAL method.
Purity	>95% as determined by SDS-PAGE.
Storage	Please avoid repeated freeze-thaw cycles. Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade. It is recommended that aliquot the reconstituted solution to minimize freeze-thaw cycles.
Storage Buffer	Lyophilized from a 0.2 μm filtered solution of PBS, pH7.4, 5% Trehalose, 5% mannitol.
Reconstitution	Reconstitute at 250 μg/mL in sterile water.

GENE INFORMATION

Gene Name	ASAH1 N-acylsphingosine amidohydrolase 1 [Homo sapiens (human)]
Official Symbol	ASAH1
Synonyms	ASAH1; N-acylsphingosine amidohydrolase (acid ceramidase) 1; ASAH, N acylsphingosine amidohydrolase (acid ceramidase); acid ceramidase; AC; FLJ21558; PHP32; acid CDase; acylsphingosine deacylase; putative 32 kDa heart protein; PHP; ASAH; ACDase; FLJ22079;

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Gene ID	427
mRNA Refseq	NM_001127505
Protein Refseq	NP_001120977
MIM	613468
UniProt ID	Q13510

Protein on SDS-PAGE under reducing (R) and Non Reducing condition.

