

Datasheet for ABIN3118435
ASAH2 Protein (AA 1-780) (Strep Tag)



[Go to Product page](#)

Overview

Quantity:	1 mg
Target:	ASAH2
Protein Characteristics:	AA 1-780
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This ASAH2 protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA

Product Details

Sequence:	MAKRTFSNLE TFLIFLLVMM SAITVALLSL LFITSGTIEN HKDLGGHFFS TTQSPPATQG STAAQRSTAT QHSTATQSST ATQTSPVPLT PESPLFQNFS GYHIGVGRAD CTGQVADINL MGYGKSGQNA QGILTRLYSR AFIMAEPDGS NRTVFVSIDI GMVSQRLRL VLNRLQSKYG SLYRRDNVIL SGTHTHSGPA GYFQYTVFVI ASEGFSNQTF QHMTVGILKS IDIAHTNMKP GKIFINKGNV DGVQINRSPY SYLQNPQSER ARYSSNTDKE MIVLKMVDLN GDDLGLISWF AIHPVSMNNS NHLVNSDNVG YASYLLEQEK NKGYPGQGP FVAAFASSNL GDVSPNILGP RCINTGESCD NANSTCPIGG PSMCIAKPGP QDMFDSTQII GRAMYQRAKE LYASASQEV GPLASAHQWV DMTDVTWVLN STHASKTCKP ALGYSFAAGT IDGVGGLNFT QGKTEGDPFW DTIRDQILGK PSEEIKECHK PKPILLHTGE LSKPHPWHPD IVDVQIITLG SLAITAIPGE FTTMSGRRRLR EAVQAEFASH GMQNMTVVIS GLCNVYTHYI TTYEEYQAQR YEAASTIYGP HTLSAYIQLF RNLAKAIATD TVANLSRGPE PPFFKQLIVP LIPSIVDRAP KGRTFGDVLQ PAKPEYRVGE VAEVIFVGAN PKNSVQNPQTH QTFLTVEKYE ATSTSWQIVC NDASWETRFY
-----------	---

WHKGLLGLSN ATVEWHIPDT AQPGIYRIRY FGHNRKQDIL KPAVILSFEG TSPAFEVVTI

Sequence without tag. The proposed Strep-Tag is based on experience s with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.

Characteristics:

Key Benefits:

- Made in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified by multi-step, protein-specific process to ensure correct folding and modification.
- These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a **made-to-order protein** and will be made for the first time for your order. Our experts in the lab will ensure that you receive a correctly folded protein.

The big advantage of ordering our **made-to-order proteins** in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from *Nicotiana tabacum* c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.
- During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

Concentration:

- The concentration of our recombinant proteins is measured using the absorbance at 280nm.
- The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

Purification:

Two step purification of proteins expressed in Almost Living Cell-Free Expression System

Product Details

- (ALiCE®):
1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag capture material. Eluate fractions are analyzed by SDS-PAGE.
 2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.

Purity:	>80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Endotoxin Level:	Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)
Grade:	Crystallography grade

Target Details

Target:	ASAH2
Alternative Name:	ASAH2 (ASAH2 Products)
Background:	<p>Neutral ceramidase (N-CDase) (NCDase) (EC 3.5.1.-) (EC 3.5.1.23) (Acylsphingosine deacylase 2) (BCDase) (LCDase) (hCD) (N-acylsphingosine amidohydrolase 2) (Non-lysosomal ceramidase) [Cleaved into: Neutral ceramidase soluble form],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). {ECO:0000250 UniProtKB:Q9JHE3, ECO:0000269 PubMed:10781606, ECO:0000269 PubMed:11278489, ECO:0000269 PubMed:15946935, ECO:0000269 PubMed:16061940, ECO:0000269 PubMed:16229686, ECO:0000269 PubMed:17475390, ECO:0000269 PubMed:19345744, ECO:0000269 PubMed:24798654, ECO:0000269 PubMed:26190575}.</p>

Target Details

Molecular Weight: 85.5 kDa

UniProt: [Q9NR71](#)

Application Details

Application Notes: In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.

Comment: ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from *Nicotiana tabacum* c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.

During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

Restrictions: For Research Use only

Handling

Format: Liquid

Buffer: The buffer composition is at the discretion of the manufacturer. If you have a special request, please contact us.

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: Unlimited (if stored properly)



Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process