

Datasheet for ABIN3078703

## DDAH2 Protein (AA 1-285) (Strep Tag)



[Go to Product page](#)

### Overview

Quantity:	1 mg
Target:	DDAH2
Protein Characteristics:	AA 1-285
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This DDAH2 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

### Product Details

Brand:	AlICE®
Sequence:	<p>MGTPGEGGLGR CSHALIRGVP ESLASGEGAG AGLPALDLAK AQREHGVLLGG KLRQRLGLQL  LLELPPEESLP LGPLLGD TAV IQGDTALITR PWSPARRPEV DGVRKALQDL GLRIVEIGDE  NATLDGTDVL FTGREFFVGL SKWTNHRGAE IVADTFRDFA VSTVPVSGPS HLRGLCGMGG  PRTVVAGSSD AAQKAVRAMA VLTDHPYASL TLPDDAAADC LFLRPGLPGV PPFLHRRGGG  DLPNSQEALQ KLSDVTLVPV SCSELEKAGA GLSSLCLVLS TRPHS</p> <p><b>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.</b></p>

Characteristics:	<p>Key Benefits:</p> <ul style="list-style-type: none"> <li>• Made in Germany - from design to production - by highly experienced protein experts.</li> </ul>
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## Product Details

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- Protein expressed with ALiCE® and purified in one-step affinity chromatography
- 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 try to ensure that you receive soluble 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 against its specific reference buffer.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

Purification:	One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®).
Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
Grade:	custom-made

## Target Details

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Target:	DDAH2
Alternative Name:	DDAH2 ( <a href="#">DDAH2 Products</a> )

## Target Details

**Background:** Putative hydrolase DDAH2 (EC 3.-.-) (DDAHII) (Inactive N(G),N(G)-dimethylarginine dimethylaminohydrolase 2) (DDAH-2) (Inactive dimethylarginine dimethylaminohydrolase 2) (Protein G6a) (S-phase protein),FUNCTION: Putative hydrolase with unknown substrate (Probable). Does not hydrolyze N(G),N(G)-dimethyl-L-arginine (ADMA) which acts as an inhibitor of NOS (PubMed:37296100, PubMed:21493890). In endothelial cells, induces expression of vascular endothelial growth factor (VEGF) via phosphorylation of the transcription factor SP1 by PKA in a process that is independent of NO and NO synthase (By similarity). Similarly, enhances pancreatic insulin secretion through SP1-mediated transcriptional up-regulation of secretagogin/SCGN, an insulin vesicle docking protein (By similarity). Upon viral infection, relocates to mitochondria where it promotes mitochondrial fission through activation of DNM1L leading to the inhibition of innate response activation mediated by MAVS (PubMed:33850055). {ECO:0000250|UniProtKB:Q99LD8, ECO:0000269|PubMed:21493890, ECO:0000269|PubMed:33850055, ECO:0000269|PubMed:37296100, ECO:0000305|PubMed:10493931, ECO:0000305|PubMed:21493890, ECO:0000305|PubMed:37296100}.

**Molecular Weight:** 29.6 kDa

**UniProt:** [O95865](#)

## 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

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Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol <b>Might differ depending on protein.</b>
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months