

Datasheet for ABIN3134576

**DEPDC5 Protein (AA 1-1591) (Strep Tag)**[Go to Product page](#)**1** Image

## Overview

Quantity:	1 mg
Target:	DEPDC5
Protein Characteristics:	AA 1-1591
Origin:	Mouse
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This DEPDC5 protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

## Product Details

Sequence:	MRTTKVYKLV IHKKGFGGSD DELVVNPKVF PHIKLGDIVE IAHPNDEYSP LLLQVKSLKE DLQKETISVD QTVTQVFRLR PYQDVYVNVV DPKDVTLDLV ELTFKDQYIG RGDMMWRLKKS LVSTCAYITQ KVEFAGIRAQ AGELWVKNEK VMCGYISEET RVVFRSTSAM VYIFIQMSCE MWDFDIYGD L YFEKAVNGFL ADLFTKWKEK NCSHEVTVVL FSRTFYDAKS IDEFPEINRA SIQEDHKGRF YEDFYKVVVQ NERREEWTS L LVTIKKLFIQ YPVLVRLEQA GGFPQGDNST SAQGNYLEAI NLSFNVFDKH YINRNFDR TG QMSVVITPGV GVFEVDRLLM ILTKQRMIDN GIGVDLVC MG EQPLHAVPLF KLHNRSVPRD SRLGDDYNIP HWINHSFYTS KSQLFCNSFT PRIKLAGKKS ASEKTKNGRD TSLGTPKESE NTLPIQVDYD AYDAQVFRLP GPSRAQRLAT CRSVREQENH SRKSASSCDV SSSPSLPSRA LPTEEVRSQA SDDSSLGKST NILMIPNPHL HQYEVSSSLG YTSTRDVLEN MIEPPQRDSS APGRFHVGS A ESMLHVRPGG YTPQRALINP FAPSRMPMKL TSNRRRWMT FVPGPSGEAI QIHHQTRQNM AELQGSQRQD PTHSSAELLE LAYHEAAGRH STSRQPGDSM SLNFSGTEEL SVSLLSNSST GVNPRQTQNKD SLEDSVSTSP
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DPMPGFCCTV GVDWKSLLTP ACLPLTTDYF PDRQGLQNDY TEGCYDLLPE ADMDRRDEEG  
VQMTAQQVFE EFICQRLMQG YQIIVQPKTQ KPNTTVPPPL SSSPLYSRGL VSRNRPEEEG  
QYWLSMGRTE HKVTLKDKMI TVTRYLPKYP YESAQIHITY SLCPSHSDSE FVSCWVDFCH  
ERLEEYKWN Y LDQYICSAGS EDFSLIESLK FWRTRFLLP ACVTATKRIT EGEVHCDIYG  
DKPRADEDEW QLLDGFIRFV EGLNRIRRRH RSDRMIRKGT AMKGLQMTGP ISAHSLEAAG  
PPVGKKGTSAL SALLEMEAS QKSLGEQQT VHGKSSTQPA ENSSVAMTPT YVDSPRKDGA  
FFMEFVRSPR TASSAFYPQA SVDQTAPLVL DSTSLGVSTG QPMDRGNNQT FGNSQNIQEA  
FPSANSGDYS SQQHVASSLT SSSTLVEILE AMKHPSTGVQ LLSEQKGLSP CCFISAEVVH  
WLMNNVEGVQ TQAMGIDIMQ KMLEEQLITH ASGEAWRTFI YGFYFYKIVM DKEPERVAMQ  
QPSAPWYTAG ADDFASFQRK WFEVAFVAEE LVHSEIPAFL LPWLPSRPAS YASRHSSFSR  
SFGGRSQAAA LLAATVPEQR TVTLDVDVNN RTDRLEWCSC YYHGNFSLNA AFEIKLHWMA  
VTATVLFEMV QGWHRKATSC GFLLPVLEG PFALPSYLYG DPLRAQLFIP LNLSCLLKEG  
SEHLFDSFEP ETYWDRMHLF QEIAHRRFGF VQDKYSVSAF NFPAENKPQY IHVTGTVFLQ  
LPYSKRKFSG QRRRRRNSTS STNQNMFC EE RVGYNWAYNT MLTKTWRSSA TGDEKFADRL  
LKDFTDFCIN RDNRLVTFWT NCLEKMHASA P

**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-

Product Details

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 (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:	DEPDC5
Alternative Name:	Depdc5 ( <a href="#">DEPDC5 Products</a> )
Background:	GATOR1 complex protein DEPDC5 (DEP domain-containing protein 5),FUNCTION: As a component of the GATOR1 complex functions as an inhibitor of the amino acid-sensing branch of the mTORC1 pathway (PubMed:31548394). In response to amino acid depletion, the GATOR1 complex has GTPase activating protein (GAP) activity and strongly increases GTP hydrolysis by RagA/RRAGA (or RagB/RRAGB) within heterodimeric Rag complexes, thereby turning them into their inactive GDP-bound form, releasing mTORC1 from lysosomal surface and inhibiting mTORC1 signaling (By similarity). In the presence of abundant amino acids, the

## Target Details

GATOR1 complex is negatively regulated by GATOR2, the other GATOR subcomplex, in this amino acid-sensing branch of the TORC1 pathway (By similarity). Within the GATOR1 complex, DEPDC5 mediates direct interaction with the nucleotide-binding pocket of small GTPases Rag (RagA/RRAGA, RagB/RRAGB, RagC/RRAGC and/or RagD/RRAGD) and coordinates their nucleotide loading states by promoting RagA/RRAGA or RagB/RRAGB into their GDP-binding state and RagC/RRAGC or RagD/RRAGD into their GTP-binding state (By similarity). However, it does not execute the GAP activity, which is mediated by NPRL2 (By similarity).  
{ECO:0000250|UniProtKB:O75140, ECO:0000269|PubMed:31548394}.

Molecular Weight: 180.4 kDa

UniProt: [P61460](#)

## 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.

Handling

Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)

Images



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