

Datasheet for ABIN3077678

## CIDEB Protein (AA 1-219) (Strep Tag)



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### 1 Image

### Overview

Quantity:	1 mg
Target:	CIDEB
Protein Characteristics:	AA 1-219
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This CIDEB protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

### Product Details

Sequence:	<p>MEYLSALNPS DLLRSVSNIS SEFGRRVWTS APPPQRPFRV CDHKRTIRKG LTAATRQELL            AKALETLLLN GVLTLVLEED GTAVDSEDFQ QLEDDTCLM VLQSGQSWSP TRSGVLSYGL            GRERPKHSDK IARFTFDVYK QNPRDLFGSL NVKATFYGLY SMSCDFQGLG PKKVLRELLR            WTSTLLQGLG HMLLGISSTL RHAVEGAEQW QQKGRLLHSY</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> <li>• Protein expressed with ALiCE® and purified by multi-step, protein-specific process to ensure correct folding and modification.</li> <li>• These proteins are normally active (enzymatically functional) as our customers have</li> </ul>

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.

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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.

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Purity:

>80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

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Endotoxin Level:

Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)

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## Product Details

Grade: Crystallography grade

## Target Details

Target: CIDEB

Alternative Name: CIDEB ([CIDEB Products](#))

Background: Lipid transferase CIDEB (Cell death activator CIDE-B) (Cell death-inducing DFFA-like effector B),FUNCTION: Lipid transferase specifically expressed in hepatocytes, which promotes unilocular lipid droplet formation by mediating lipid droplet fusion (PubMed:35939579). Lipid droplet fusion promotes their enlargement, restricting lipolysis and favoring lipid storage (PubMed:35939579). Localizes on the lipid droplet surface, at focal contact sites between lipid droplets, and mediates atypical lipid droplet fusion by promoting directional net neutral lipid transfer from the smaller to larger lipid droplets (By similarity). The transfer direction may be driven by the internal pressure difference between the contacting lipid droplet pair (By similarity). Promotes lipid exchange and lipid droplet fusion in both small and large lipid droplet-containing hepatocytes (By similarity). In addition to its role in lipid droplet fusion, also involved in cytoplasmic vesicle biogenesis and transport (By similarity). Required for very-low-density lipoprotein (VLDL) lipidation and maturation (By similarity). Probably involved in the biogenesis of VLDL transport vesicles by forming a COPII vesicle coat and facilitating the formation of endoplasmic reticulum-derived large vesicles (By similarity). Also involved in sterol-regulated export of the SCAP-SREBP complex, composed of SCAP, SREBF1/SREBP1 and SREBF2/SREBP2, by promoting loading of SCAP-SREBP into COPII vesicles (By similarity). May also activate apoptosis (PubMed:10619428). {ECO:0000250|UniProtKB:O70303, ECO:0000250|UniProtKB:P56198, ECO:0000269|PubMed:10619428, ECO:0000269|PubMed:35939579}., FUNCTION: (Microbial infection) Involved in Hepatitis C virus (HCV) assembly and required for HCV entry into hepatocytes. {ECO:0000269|PubMed:27282740}.

Molecular Weight: 24.7 kDa

UniProt: [Q9UHD4](#)

## 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.

## Application Details

Comment:	<p>ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from <i>Nicotiana tabacum</i> 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.</p> <p>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!</p>
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)

## Images



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