

Datasheet for ABIN3101236
ZDHHC20 Protein (AA 1-365) (Strep Tag)



[Go to Product page](#)

1 Image

Overview

Quantity:	1 mg
Target:	ZDHHC20
Protein Characteristics:	AA 1-365
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This ZDHHC20 protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Sequence: MAPWTLWRCC QRVVGVWPVL FITFVVWSY YAYVVELCVF TIFGNEENGK TVVYLVAFHL
FFVMFVWSYW MTIFTSPASP SKEFYLSNSE KERYEKEFSQ ERQQEILRRA ARALPIYTTS
ASKTIRYCEK CQLIKPDRAH HCSACDSCIL KMDHHCPWVN NCVGFSNYKF FLLFLLYSLL
YCLFVAATVL EYFIKFWTNE LTDTRAKFHV LFLFFVSAMF FISVLSLFSY HCWLVGKNRT
TIESFRAPTF SYGPDGNGFS LGCSKNWRQV FGDEKKYWLL PIFSSLGDGC SFPTRLVGMD
PEQASVTNQN EYARSSGSNQ PFPKPLSES KNRLDSESQ WLENGAEEGI VKSGTNNHVT VAIEN

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 (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.

Product Details

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

Grade: Crystallography grade

Target Details

Target: ZDHHC20

Alternative Name: ZDHHC20 ([ZDHHC20 Products](#))

Background: Palmitoyltransferase ZDHHC20 (EC 2.3.1.225) (Acyltransferase ZDHHC20) (EC 2.3.1.-) (DHHC domain-containing cysteine-rich protein 20) (DHHC20) (Zinc finger DHHC domain-containing protein 20),FUNCTION: Palmitoyltransferase that could catalyze the addition of palmitate onto various protein substrates (PubMed:27153536, PubMed:29326245, PubMed:33219126). Catalyzes palmitoylation of Cys residues in the cytoplasmic C-terminus of EGFR, and modulates the duration of EGFR signaling by modulating palmitoylation-dependent EGFR internalization and degradation (PubMed:27153536). Has a preference for acyl-CoA with C16 fatty acid chains (PubMed:29326245). Can also utilize acyl-CoA with C14 and C18 fatty acid chains (PubMed:29326245). {ECO:0000269|PubMed:27153536, ECO:0000269|PubMed:29326245, ECO:0000269|PubMed:33219126}., FUNCTION: (Microbial infection) Dominant palmitoyltransferase responsible for lipidation of SARS coronavirus-2/SARS-CoV-2 spike protein. Through a sequential action with ZDHHC9, rapidly and efficiently palmitoylates spike protein following its synthesis in the endoplasmic reticulum (ER). In the infected cell, promotes spike biogenesis by protecting it from premature ER degradation, increases half-life and controls the lipid organization of its immediate membrane environment. Once the virus has formed, spike palmitoylation controls fusion with the target cell. {ECO:0000269|PubMed:34599882}.

Molecular Weight: 42.3 kDa

UniProt: [Q5W0Z9](#)

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

Application Details

modifications.

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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