

Datasheet for ABIN3081483

HKDC1 Protein (AA 1-917) (Strep Tag)[Go to Product page](#)**1** Image

Overview

Quantity:	1 mg
Target:	HKDC1
Protein Characteristics:	AA 1-917
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This HKDC1 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence:	MAFAVHLMAFY FSKLKEDQIK KVDRFLYHMR LSDDTLDDIM RRFRAEMKEG LAKDTNPTAA VKMLPTFVRA IPDGSENGEF LSLDLGGSKF RVLKVQVAEE GKRHVQMESQ FYPTPNEIIR GNGTELFYEV ADCLADFMKT KDLKHKKLPL GLTFSFPCRQ TKLEEGVLLS WTKKFKARGV QQTDVVSRLT KAMRRHKDMD VDILALVNDT VGTMMTCAYD DPYCEVGVII GTGTNACYME DMSNIDLVEG DEGRMCINTE WGAFGDDGAL EDIRTEFDRE LDLGSLNPGK QLFKEMISGL YLDELVRIL LKMAKAGLLF GGEKSSALHT KGKIETRHVA AMEKYKEGLA NTREILVDLG LEPSEADCIA VQHVCTIVSF RSANLCAAAL AAILTRLREN KKVERLRRTTV GMDGTLYKIH PQYPKRLHKV VRKLVPSCDV RFLLESSEGST KGAAMVTAVA SRVQAQRKQI DRVLALFQLT REQLVDVQAK MRAELEYGLK KKSHTGLATVR MLPTYVCGLP DGTEKGKFLA LDGGTNFRV LLVKIRSGRR SVRMYNKIFA IPLEIMQGTG EELFDHIVQC IADFLDYMGL KGASLPLGFT FSFPCRQMSI DKGTLLGWTK GFKATDCEGE DVVDMLREAI KRRNEFDLDI VAVVNDTVGT MMTCGYEDPN CEIGLIAGTG SNMCYMEDMR NIEMVEGGEG KMCINTEWGG FGDNGCIDI
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WTRYDTEVDE GSLNPGKQRY EKMTSGMYLG EIVRQILIDL TKQGLLFRGQ ISERLRTRGI
FETKFLSQIE SDRLLALLQVR RILQQLGLDS TCEDSIVVKE VCGAVSRRAA QLCGAGLAAI
VEKRREDQGL EHLRITVGVD GTLYKLHPHF SRILQETVKE LAPRCDVTFM LSEDGSGKGA
ALITAVAKRL QQAQKEN

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.

Product Details

- 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:	HKDC1
Alternative Name:	HKDC1 (HKDC1 Products)
Background:	Hexokinase HKDC1 (EC 2.7.1.1) (Hexokinase domain-containing protein 1),FUNCTION: Catalyzes the phosphorylation of hexose to hexose 6-phosphate, although at very low level compared to other hexokinases (PubMed:30517626). Has low glucose phosphorylating activity compared to other hexokinases (PubMed:30517626). Involved in glucose homeostasis and hepatic lipid accumulation. Required to maintain whole-body glucose homeostasis during pregnancy, however additional evidences are required to confirm this role (By similarity). {ECO:0000250 UniProtKB:Q91W97, ECO:0000269 PubMed:30517626}.
Molecular Weight:	102.5 kDa
UniProt:	Q2TB90

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

Application Details

even the most difficult-to-express proteins, including those that require post-translational 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