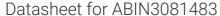
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HKDC1 Protein (AA 1-917) (Strep Tag)



Image



Go to Product page

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:

MFAVHLMAFY FSKLKEDQIK KVDRFLYHMR LSDDTLLDIM RRFRAEMEKG LAKDTNPTAA VKMLPTFVRA IPDGSENGEF LSLDLGGSKF RVLKVQVAEE GKRHVQMESQ FYPTPNEIIR GNGTELFEYV ADCLADFMKT KDLKHKKLPL GLTFSFPCRQ TKLEEGVLLS WTKKFKARGV QDTDVVSRLT KAMRRHKDMD VDILALVNDT VGTMMTCAYD DPYCEVGVII GTGTNACYME DMSNIDLVEG DEGRMCINTE WGAFGDDGAL EDIRTEFDRE LDLGSLNPGK QLFEKMISGL YLGELVRLIL LKMAKAGLLF GGEKSSALHT KGKIETRHVA AMEKYKEGLA NTREILVDLG LEPSEADCIA VQHVCTIVSF RSANLCAAAL AAILTRLREN KKVERLRTTV GMDGTLYKIH PQYPKRLHKV VRKLVPSCDV RFLLSESGST KGAAMVTAVA SRVQAQRKQI DRVLALFQLT REQLVDVQAK MRAELEYGLK KKSHGLATVR MLPTYVCGLP DGTEKGKFLA LDLGGTNFRV LLVKIRSGRR SVRMYNKIFA IPLEIMQGTG EELFDHIVQC IADFLDYMGL KGASLPLGFT FSFPCRQMSI DKGTLIGWTK GFKATDCEGE DVVDMLREAI KRRNEFDLDI VAVVNDTVGT MMTCGYEDPN CEIGLIAGTG SNMCYMEDMR NIEMVEGGEG KMCINTEWGG FGDNGCIDDI

WTRYDTEVDE GSLNPGKQRY EKMTSGMYLG EIVRQILIDL TKQGLLFRGQ ISERLRTRGI FETKFLSQIE SDRLALLQVR 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 posttranslational 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.
	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

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

Images

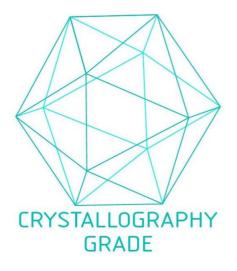


Image 1. "Crystallography Grade" protein due to multi-step, protein-specific purification process