Datasheet for ABIN3094558

PHF12 Protein (AA 1-1004) (Strep Tag)

1 Image

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Overview

Quantity:	1 mg
Target:	PHF12
Protein Characteristics:	AA 1-1004
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This PHF12 protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Sequence:	MWEKMETKTI VYDLDTSGGL MEQIQALLAP PKTDEAEKRS RKPEKEPRRS GRATNHDSCD SCKEGGDLLC CDHCPAAFHL QCCNPPLSEE MLPPGEWMCH RCTVRRKKRE QKKELGHVNG LVDKSGKRTT SPSSDTDLLD RSASKTELKA IAHARILERR ASRPGTPTSS ASTETPTSEQ NDVDEDIIDV DEEPVAAEPD YVQPQLRRPF ELLIAAAMER NPTQFQLPNE LTCTTALPGS SKRRRKEETT GKNVKKTQHE LDHNGLVPLP VKVCFTCNRS CRVAPLIQCD YCPLLFHMDC LEPPLTAMPL GRWMCPNHIE HVVLNQKNMT LSNRCQVFDR FQDTVSQHVV KVDFLNRIHK KHPPNRRVLQ SVKRRSLKVP DAIKSQYQFP PPLIAPAAIR DGELICNGIP EESQMHLLNS EHLATQAEQQ EWLCSVVALQ CSILKHLSAK QMPSHWDSEQ TEKADIKPVI VTDSSVTTSL QTADKTPTPS HYPLSCPSGI STQNSLSCSP PHQSPALEDI GCSSCAEKSK KTPCGTANGP VNTEVKANGP HLYSSPTDST DPRRLPGANT PLPGLSHRQG WPRPLTPPAA GGLQNHTVGI IVKTENATGP SSCPQRSLVP VPSLPPSIPS SCASIENTST LQRKTVQSQI GPPLTDSRPL GSPPNATRVL TPPQAAGDGI LATTANQRFS SPAPSSDGKV SPGTLSIGSA LTVPSFPANS

TAMVDLTNSL RAFMDVNGEI EINMLDEKLI KFLALQRIHQ LFPSRVQPSP GSVGTHQLAS GGHHIEVQRK EVQARAVFYP LLGLGGAVNM CYRTLYIGTG ADMDVCLTNY GHCNYVSGKH ACIFYDENTK HYELLNYSEH GTTVDNVLYS CDFSEKTPPT PPSSIVAKVQ SVIRRRRHQK QDEEPSEEAA MMSSQAQGPQ RRPCNCKASS SSLIGGSGAG WEGTALLHHG SYIKLGCLQF VFSITEFATK QPKGDASLLQ DGVLAEKLSL KPHQGPVLRS NSVP

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

Product Details

	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:	PHF12
Alternative Name:	PHF12 (PHF12 Products)
Background:	PHD finger protein 12 (PHD factor 1) (Pf1),FUNCTION: Transcriptional repressor acting as key scaffolding subunit of SIN3 complexes which contributes to complex assembly by contacting each core subunit domain, stabilizes the complex and constitutes the substrate receptor by recruiting the H3 histone tail (PubMed:37137925). SIN3 complexes are composed of a SIN3 scaffold subunit, one catalytic core (HDAC1 or HDAC2) and 2 chromatin targeting modules (PubMed:11390640, PubMed:37137925). SIN3B complex represses transcription and counteracts the histone acetyltransferase activity of EP300 through the recognition H3K27ac marks by PHF12 and the activity of the histone deacetylase HDAC2 (PubMed:37137925). SIN3B complex is recruited downstream of the constitutively active genes transcriptional start sites through interaction with histones and mitigates histone acetylation and RNA polymerase II progression within transcribed regions contributing to the regulation of transcription (PubMed:21041482). May also repress transcription in a SIN3A-independent manner through recruitment of functional TLE5 complexes to DNA (PubMed:11390640). May also play a role in ribosomal biogenesis (By similarity). {ECO:0000250|UniProtKB:Q5SPL2, ECO:0000269|PubMed:11390640, ECO:0000269|PubMed:21041482, ECO:0000269|PubMed:37137925}.

Target Details

Molecular Weight:	109.7 kDa
UniProt:	Q96QT6

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)

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

