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Datasheet for ABIN3082516
KLHL3 Protein (AA 1-587) (Strep Tag)

Overview

Quantity:	1 mg
Target:	KLHL3
Protein Characteristics:	AA 1-587
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This KLHL3 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence: MEGESVKLSS QTLIQAGDDE KNQRTITVNP AHMGKAFKVM NELRSKQLLC DVMIVAEDVE
IEAHRVVLAA CSPYFCAMFT GDMSESKAKK IEIKDVDGQT LSKLIDYIYT AEIEVTEENV
QVLLPAASLL QLMDVRQNCC DFLQSQLHPT NCLGIRAFAD VHTCTDLLQQ ANAYAEQHFP
EVMLGEEFLS LSLDQVCSLI SSDKLTVSSE EKVFEAVISW INYEKETRLE HMAKLMEHVR
LPLLPRDYLV QTVEEEALIK NNNTCKDFLI EAMKYHLLPL DQRLLIK NPR TKPRTVPSLP
KVMIVGGQA PKAIRSVECY DFEEDRWDQI AELPSRR CRA GVVFMAGHVY AVGGFNGSLR
VRTVDVYDGV KDQWTSIASM QERRSTLGAA VLNDLLYAVG GFDGSTGLAS VEAYSYKTNE
WFFVAPMNTR RSSVGVGVVE GKLYAVGGYD GASRQCLSTV EQYNPATNEW IYVADMSTRR
SGAGVGVLSG QLYATGGHDG PLVRKSVEVY DPGTNTWKQV ADMNMCR RNA GVCAVNGLLY
VVGDDGSCN LASVEYYNPV TDKWTLPTN MSTGRSYAGV AVIHKSL

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.

Product Details

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)

Target Details

Target: KLHL3

Alternative Name: KLHL3 ([KLHL3 Products](#))

Background: Kelch-like protein 3,FUNCTION: Substrate-specific adapter of a BCR (BTB-CUL3-RBX1) E3 ubiquitin ligase complex that acts as a regulator of ion transport in the distal nephron (PubMed:14528312, PubMed:22406640, PubMed:23387299, PubMed:23453970, PubMed:23576762, PubMed:23665031, PubMed:25313067, PubMed:35093948). The BCR(KLHL3) complex acts by mediating ubiquitination and degradation of WNK1 and WNK4, two activators of Na-Cl cotransporter SLC12A3/NCC in distal convoluted tubule cells of kidney, thereby regulating NaCl reabsorption (PubMed:23387299, PubMed:23453970, PubMed:23576762, PubMed:23665031, PubMed:25313067, PubMed:35093948). The BCR(KLHL3) complex also mediates ubiquitination and degradation of WNK3 (PubMed:35179207). The BCR(KLHL3) complex also mediates ubiquitination of CLDN8, a tight-junction protein required for paracellular chloride transport in the kidney, leading to its degradation (By similarity). {ECO:0000250|UniProtKB:E0CZ16, ECO:0000269|PubMed:14528312, ECO:0000269|PubMed:22406640, ECO:0000269|PubMed:23387299, ECO:0000269|PubMed:23453970, ECO:0000269|PubMed:23576762, ECO:0000269|PubMed:23665031, ECO:0000269|PubMed:25313067, ECO:0000269|PubMed:35093948}.

Molecular Weight: 65.0 kDa

UniProt: [Q9UH77](#)

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)