Datasheet for ABIN3093465

KLHL25 Protein (AA 1-589) (Strep Tag)

1 Image

Go to Product page

Overview

Quantity:	1 mg
Target:	KLHL25
Protein Characteristics:	AA 1-589
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This KLHL25 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence:	MSVSVHETRK SRSSTGSMNV TLFHKASHPD CVLAHLNTLR KHCMFTDVTL WAGDRAFPCH RAVLAASSRY FEAMFSHGLR ESRDDTVNFQ DNLHPEVLEL LLDFAYSSRI AINEENAESL LEAGDMLQFH DVRDAAAEFL EKNLFPSNCL GMMLLSDAHQ CRRLYEFSWR MCLVHFETVR QSEDFNSLSK DTLLDLISSD ELETEDERVV FEAILQWVKH DLEPRKVHLP ELLRSVRLAL LPSDCLQEAV SSEALLMADE RTKLIMDEAL RCKTRILQND GVVTSPCARP RKAGHTLLIL GGQTFMCDKI YQVDHKAKEI IPKADLPSPR KEFSASAIGC KVYVTGGRGS ENGVSKDVWV YDTVHEEWSK AAPMLIARFG HGSAELENCL YVVGGHTSLA GVFPASPSVS LKQVEKYDPG ANKWMMVAPL RDGVSNAAVV SAKLKLFVFG GTSIHRDMVS KVQCYDPSEN RWTIKAECPQ PWRYTAAAVL GSQIFIMGGD TEFTAASAYR FDCETNQWTR IGDMTAKRMS CHALASGNKL YVVGGYFGTQ RCKTLDCYDP TSDTWNCITT VPYSLIPTAF VSTWKHLPA **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)
Grade:	Crystallography grade

Target Details

Target:	KLHL25
Alternative Name:	KLHL25 (KLHL25 Products)
Background:	Kelch-like protein 25 (Ectoderm-neural cortex protein 2) (ENC-2),FUNCTION: Substrate-specific adapter of a BCR (BTB-CUL3-RBX1) E3 ubiquitin ligase complex involved in various processes, such as translation homeostasis and lipid synthesis (PubMed:22578813, PubMed:27664236, PubMed:34491895). The BCR(KLHL25) ubiquitin ligase complex acts by mediating ubiquitination of hypophosphorylated EIF4EBP1 (4E-BP1): ubiquitination and subsequent degradation of hypophosphorylated EIF4EBP1 (4E-BP1) probably serves as a homeostatic mechanism to maintain translation and prevent eIF4E inhibition when eIF4E levels are low (PubMed:22578813). The BCR(KLHL25) complex does not target EIF4EBP1 (4E-BP1) when it is hyperphosphorylated or associated with eIF4E (PubMed:22578813). The BCR(KLHL25) complex also acts as a regulator of lipid synthesis by mediating ubiquitination and degradation of ACLY, thereby inhibiting lipid synthesis (PubMed:27664236, PubMed:34491895). BCR(KLHL25)-mediated degradation of ACLY promotes fatty acid oxidation and is required for differentiation of inducible regulatory T (iTreg) cells (PubMed:34491895). {ECO:0000269|PubMed:22578813, ECO:0000269|PubMed:27664236, ECO:0000269|PubMed:34491895}.
Molecular Weight:	65.9 kDa
UniProt:	Q9H0H3

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:	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