Datasheet for ABIN3130890

TTLL3 Protein (AA 1-927) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	TTLL3
Protein Characteristics:	AA 1-927
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This TTLL3 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Brand:	AliCE®
Sequence:	MQGVSSALLL SAGQLGPGAA WYRQEGSSEC SWLRRSQPSE LRTNFSSRWP WPRNSESRRS ERLQWPGPAS AKPEVASCGD SRRDYSSLPA RHLSSARESS MPGALGTVNP QPVRTLVPPT LDEPLPDALR PPDDSLLLWR GLTKGPNHMG RLRNAKIHVE RAVKQKKIFM IHGRYPVIRC LLRQRGWVEK KMVHPPGTAL PAPQKDLDSS MLGDSDATED EDEEENEMFR ESQLLDLDGF LEFDDLDGIH ALMSRMVRNE TPYLIWTTRR DVLDCRFLSK DQMINHYARA GSFTTKVGLC LNLRNLPWFD EADADSFFPR CYRLGAEDDK KAFIEDFWLT AARNVLKLVV KLEEKSQSIS IQAREEEAPE DTQPKKQEKK LVTVSSDFVD EALSACQEHL SSIAHKDIDK DPNSPLYLSP DDWSQFLQRY YQIVHEGAEL RYLEVQVQRC EDILQQLQNV VPQLDMEGDR NIWIVKPGAK SRGRGIMCMN RLDEMLKLVD CNPMLMKDGK WIVQKYIERP LLIFGTKFDL RQWFLVTDWN PLTVWFYRDS YIRFSTQPFS LKNLDNSVHL CNNSIQRHLE ASCHRHPMLP PDNMWSSQRF QAHLQEVDAP KAWSSVIVPG MKAAVIHALQ TSQDNVQCRK ASFELYGADF VFGEDFQPWL

IEINASPTMA PSTAVTARLC AGVQADTLRV VIDRRLDRSC DTGAFELIYK QPAVEVPQYV GIRLLVEGST IKKPVPVGHR RTGVRSSLPH LLTQQGSGES KDSGSPTHRS ASRKNARAES LEHTEKPEPA AVASVSGKGK KAPFHFPSLH SKAWLPSPRV HRPQGRVLRL QHDQLVGSKA LSTTGKALMT LPTAKVLMSF PPHPDLKLAP SMLKPGKVGF ELCCTTWRVV LSGGIGEEGH RQRAAPRPSS APGKGLSSTE PCSKTET

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 in one-step affinity chromatography
- 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 try to ensure that you receive soluble 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 against its specific reference buffer.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

Product Details

Purification:	One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (AliCE®).
Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
Grade:	custom-made

Target Details

Target:	TTLL3
Alternative Name:	Ttll3 (TTLL3 Products)
Background:	Tubulin monoglycylase TTLL3 (EC 6.3.2.-) (Tubulin--tyrosine ligase-like protein 3),FUNCTION: Monoglycylase which modifies alpha- and beta-tubulin, adding a single glycine on the gamma-carboxyl groups of specific glutamate residues to generate monoglycine side chains within the C-terminal tail of tubulin (PubMed:19524510). Not involved in elongation step of the polyglycylation reaction (PubMed:19524510). Preferentially glycylates a beta-tail peptide over the alpha-tail, although shifts its preference toward alpha-tail as beta-tail glutamylation increases (By similarity). Competes with polyglutamylases for modification site on beta-tubulin substrate, thereby creating an anticorrelation between glycylation and glutamylation reactions (PubMed:33414192). Together with TTLL8, mediates microtubule glycylation of primary and motile cilia, which is essential for their stability and maintenance (PubMed:23897886, PubMed:25180231). Involved in microtubule glycylation of primary cilia in colon which controls cell proliferation of epithelial cells and plays an essential role in colon cancer development (PubMed:25180231). Together with TTLL8, glycylates sperm flagella which regulates axonemal dynein motor activity, thereby controlling flagellar beat, directional sperm swimming and male fertility (PubMed:33414192). {ECO:0000250|UniProtKB:B2GUB3, ECO:0000269|PubMed:19524510, ECO:0000269|PubMed:23897886, ECO:0000269|PubMed:25180231, ECO:0000269|PubMed:33414192}.
Molecular Weight:	104.4 kDa
UniProt:	A4Q9E5

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

Application Details

	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. Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol **Might differ depending on protein.**
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months