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Datasheet for ABIN3130891
TTLL6 Protein (AA 1-822) (Strep Tag)

Overview

Quantity:	1 mg
Target:	TTLL6
Protein Characteristics:	AA 1-822
Origin:	Mouse
Source:	Tobacco (<i>Nicotiana tabacum</i>)
Protein Type:	Recombinant
Purification tag / Conjugate:	This TTLL6 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence: MLQCLTSESE EGAEEREES TEDLEELKEF VTLAFVRENT QKRLQNAQQH GKKKRKKKRL
VINLSNCRYD SVRRAAQYQ LREAGDNDW TLYWTDYSVS LERVMEMKSY QKINHFPGMS
EICRKDLLAR NMSRMLKLF KDFHFFPRTW CLPADWGDQ TYSTRTRKNT YICKPDSGCQ
GRGIFITRSV KEIKPGEDMI CQLYISKPFI IDGFKFDLRV YVLVTSCDPL RVFVYNEGLA
RFATTSYSH NLDNLDEICM HLTNYSINKH SSNFVQDAFS GSKRKLSTFN SYMKTHGYDV
EQIWRGIEDV IIKTLISAHP VIKHNYHTCF PSHTLNSACF EILGFDILL RKLKPWLLEV
NHSPSFSTDS KLDKEVKDSL LYDALVLINL GNCDKKKVLE EERQRGRFLQ QCPNREIRLE
EVKGFQAMRL QKTEEYKKN CGGFRLIYPG LNLEKYDKFF QDNSSLFQNT VASRARELYA
RQLIQELRQK QEKVFLKKA RKEETQGESA GEQARDKVV LQRQRQPKC KTVATCPPKQ
SLHPVTLVSC TSGLLLNI R LKKGEISESL EQKDTKEAML IPCKPVSARN YSSVPDLRSA
NPSCFEPEFH VPNAKVKEVK SAFMVNIEST AQPITSVESS RDATAPISTS LESLASM SLS
TSPECSSPES VHMVSYNHKQ QKASFHKPMQ EKSKPLMFS KSRHLDLNCT SMKNDINRQY

LMSEILQKVQ MKKKRPLFPA PKSQYPTLSK ERCPHSRSSS RKKEMNPSV FVLQASHSRA
ESLNDLLVVA TQARLDPRPS RSHSGTTTRD SSTQDPKHTA TA

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.

Product Details

Purification:	Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®): <ol style="list-style-type: none">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)

Target Details

Target:	TTL6
Alternative Name:	Ttl6 (TTL6 Products)
Background:	<p>Tubulin polyglutamylase TTL6 (EC 6.3.2.-) (Protein polyglutamylase TTL6) (Tubulin--tyrosine ligase-like protein 6),FUNCTION: Polyglutamylase which modifies both tubulin and non-tubulin proteins, generating alpha-linked polyglutamate side chains on the gamma-carboxyl group of specific glutamate residues of target proteins (PubMed:17499049, PubMed:21074048, PubMed:20530212, PubMed:26829768, PubMed:32747782). Preferentially mediates ATP-dependent long polyglutamate chain elongation over the initiation step of the polyglutamylation reaction (PubMed:17499049, PubMed:21074048, PubMed:20530212, PubMed:26829768, PubMed:32747782). Preferentially modifies the alpha-tubulin tail over a beta-tail (PubMed:17499049, PubMed:20530212, PubMed:21074048, PubMed:32747782). Promotes tubulin polyglutamylation which stimulates spastin/SPAST-mediated microtubule severing, thereby regulating microtubule functions (PubMed:20530212). Mediates microtubule polyglutamylation in primary cilia axoneme which is important for ciliary structural formation and motility (PubMed:22246503). Mediates microtubule polyglutamylation in motile cilia, necessary for the regulation of ciliary coordinated beating (PubMed:23897886). Polyglutamylates non-tubulin protein nucleotidyltransferase CGAS, leading to CGAS DNA-binding inhibition, thereby preventing antiviral defense response (PubMed:26829768). {ECO:0000269 PubMed:17499049, ECO:0000269 PubMed:20530212, ECO:0000269 PubMed:21074048, ECO:0000269 PubMed:22246503, ECO:0000269 PubMed:23897886, ECO:0000269 PubMed:26829768, ECO:0000269 PubMed:32747782}.</p>
Molecular Weight:	94.5 kDa

Target Details

UniProt: [A4Q9E8](#)

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)