

Datasheet for ABIN3078915  
**LIG1 Protein (AA 1-919) (Strep Tag)**



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## Overview

Quantity:	250 µg
Target:	LIG1
Protein Characteristics:	AA 1-919
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This LIG1 protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA

## Product Details

Brand:	AliCE®
Sequence:	<p> MQRSIMSFFH PKKEGKAKKP EKEASNSSRE TEPPPKAALK EWNGVVSSED SPVKRPGRKA  ARVLGSEGEE EDEALSPAKG QKPALDCSQV SPPRPATSPE NNASLSDTSP MDSSPSGIPK  RRTARKQLPK RTIQEVLEEQ SEDEDREAKR KKEEEEEETP KESLTEAEVA TEKEGEDGDQ  PTTPPKPLKT SKAETPTESV SEPEVATKQE LQEEEEQTKP PRRAPKTLSS FFTPRKPAVK  KEVKEEPPGA PGKEGAAEGP LDPSGYNPAK NNYHPVEDAC WKPQKQVPYL AVARTFEKIE  EVSARLRMVE TLSNLLRSV ALSPDLLPV LYLSLNHLGP PQQGLELGVG DGVLLKAVAQ  ATGRQLESVR AEAEEKGDVG LVAENSRSTQ RLMLPPPPLT ASGVFSKFRD IARLTGSAST  AKKIDIIKGL FVACRHSEAR FIARSLSGRL RLGLAEQSVL AALSQAVSLT PPGQEFPPAM  VDAGKGKTAE ARKTWLEEQG MILKQTFCEV PDLDRIPVL LEHGLERLPE HCKLSPGIPL  KPMLAHPTRG ISEVLKRFEI AFTCEYKYD GQRAQIHALE GGEVKIFSRN QEDNTGKYPD  IISRIPIKL PSVTSFILD T EAVAWDREKK QIQPFQVLT RKRKEVDASE IQVQVCLYAF </p>

DLIYLN GESL VREPLSRRRQ LLRENFVETE GEFVFATSLD TKDIEQIAEF LEQSVKDSCE  
GLMVKTLDVD ATYEIAKRSH NWLKLKKDYL DGVGDTLDLV VIGAYLGRGK RAGRYGGFLL  
ASYDEDSEEL QAICKLGTGF SDEELEEHHQ SLKALVLPSP RPYVRIDGAV IPDHWLDPSA  
VWEVKCADLS LSPIYPAARG LVDSDKGISL RFPRFIRVRE DKQPEQATTS AQVACLYRKQ  
SQIQNQGGED SGSDPEDTY

**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.**

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### 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

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

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Target:	LIG1
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Alternative Name:	LIG1 ( <a href="#">LIG1 Products</a> )
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Background:	DNA ligase 1 (EC 6.5.1.1) (DNA ligase I) (Polydeoxyribonucleotide synthase [ATP] 1),FUNCTION: DNA ligase that seals nicks in double-stranded during DNA repair (PubMed:30395541). Also involved in DNA replication and DNA recombination. {ECO:0000269 PubMed:30395541}.
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Molecular Weight:	101.7 kDa
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UniProt:	<a href="#">P18858</a>
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Pathways:	<a href="#">Telomere Maintenance</a> , <a href="#">DNA Damage Repair</a> , <a href="#">DNA Replication</a> , <a href="#">Synthesis of DNA</a>
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## Application Details

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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.
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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>
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Restrictions:	For Research Use only
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## Handling

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Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol <b>Might differ depending on protein.</b>
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months