

Datasheet for ABIN3074854

**FTSJ1 Protein (AA 1-329) (Strep Tag)**[Go to Product page](#)**1** Image

## Overview

Quantity:	1 mg
Target:	FTSJ1
Protein Characteristics:	AA 1-329
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This FTSJ1 protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), ELISA, Western Blotting (WB)

## Product Details

Sequence: MGRTSKDKRD VYYRLAKENG WRARSAFKLL QLDKEFQLFQ GVTRAVDLCA APGSWSQVLS  
QKIGGQGSGH VVAVDLQAMA PLPGVVQIQG DITQLSTAKE IIQHFKGCPA DLVVCDGAPD  
VTGLHDVDEY MQAQLLLAAL NIATHVLKPG GCFVAKIFRG RDVTLLYSQL QVFFSSVLCA  
KPRSSRNSSI EAFAVCQGYD PPEGFIPDLS KPLLDHSYDP DFNQLDGPTR IIVPFVTCGD  
LSSYSDRSY PLDLEGGSEY KYTPPTQPPI SPPYQEAETL KRKGQLAKEI RPQDCPISRV  
DTFPQPLAAP QCHTLLAPEM EDNEMSCSP

**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: <ul style="list-style-type: none"><li>• Made in Germany - from design to production - by highly experienced protein experts.</li><li>• Protein expressed with ALICE® and purified by multi-step, protein-specific process to ensure</li></ul>
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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.

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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.
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.

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Purity:

>80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

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## Product Details

Endotoxin Level: Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)

Grade: Crystallography grade

## Target Details

Target: FTSJ1

Alternative Name: FTSJ1 ([FTSJ1 Products](#))

Background: TRNA (cytidine(32)/guanosine(34)-2'-O)-methyltransferase (EC 2.1.1.205) (2'-O-ribose RNA methyltransferase TRM7 homolog) (Protein ftsJ homolog 1),FUNCTION: Methylates the 2'-O-ribose of nucleotides at positions 32 and 34 of the tRNA anticodon loop of substrate tRNAs (PubMed:25404562, PubMed:32558197, PubMed:32198346, PubMed:33771871, PubMed:26310293, PubMed:36720500). Requisite for faithful cytoplasmic translation (PubMed:32393790). Requires THADA for methylation of the nucleotide at position 32 of the anticodon loop of substrate tRNAs (PubMed:26310293, PubMed:25404562). Requires WDR6 for methylation of the nucleotide at position 34 of the anticodon loop of substrate tRNAs (PubMed:32558197, PubMed:33771871). Promotes translation efficiency of the UUU codon (PubMed:32558197). Plays a role in neurogenesis (PubMed:36720500). Required for expression of genes involved in neurogenesis, mitochondrial translation and energy generation, and lipid biosynthesis (PubMed:36720500, PubMed:33771871). Requisite for RNA-mediated gene silencing (PubMed:36720500). May modify position 32 in tRNA(Arg(ACG)), tRNA(Arg(CCG)), tRNA(Arg(UCG)), tRNA(Cys(GCA)), tRNA(Cys(ACA)), tRNA(Gln(CUG)), tRNA(Gln(UUG)), tRNA(Gly(CCC)), tRNA(Leu(CAG))/tRNA(Leu(CAA)), tRNA(Leu(A/IAG)), tRNA(Leu(UAG)), tRNA(Phe(GAA)), tRNA(Pro(AGG))/tRNA(Pro(CGG))/tRNA(Pro(UGG)) and tRNA(Trp(CCA)), and position 34 in tRNA(Phe(GAA)), tRNA(Leu(CAA)), tRNA(Sec(UCA)), and tRNA(Trp(CCA)) (PubMed:32558197, PubMed:32198346, PubMed:33771871, PubMed:26310293, PubMed:36720500). {ECO:0000269|PubMed:25404562, ECO:0000269|PubMed:26310293, ECO:0000269|PubMed:32198346, ECO:0000269|PubMed:32393790, ECO:0000269|PubMed:32558197, ECO:0000269|PubMed:33771871, ECO:0000269|PubMed:36720500}.

Molecular Weight: 36.1 kDa

UniProt: [Q9UET6](#)

## Application Details

Application Notes: In addition to the applications listed above we expect the protein to work for functional studies

## Application Details

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as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.

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### Comment:

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### Restrictions:

For Research Use only

## Handling

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### Format:

Liquid

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### Buffer:

The buffer composition is at the discretion of the manufacturer. If you have a special request, please contact us.

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### Handling Advice:

Avoid repeated freeze-thaw cycles.

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### Storage:

-80 °C

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### Storage Comment:

Store at -80°C.

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### Expiry Date:

Unlimited (if stored properly)



**Image 1.** „Crystallography Grade“ protein due to multi-step, protein-specific purification process