

Datasheet for ABIN3118652

**ERAP1 Protein (AA 1-941) (Strep Tag)**[Go to Product page](#)**1** Image

## Overview

Quantity:	1 mg
Target:	ERAP1
Protein Characteristics:	AA 1-941
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This ERAP1 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

## Product Details

Sequence:	MVFLPLKWSL ATMSFLLSSL LALLTVSTPS WCQSTEASPK RSDGTPFPWN KIRLPEYVIP VHYDLLIHAN LTTLTFWGTT KVEITASQPT STIILHSHHL QISRATLRKG AGERLSEEPL QVLEHPRQEQ IALLAPEPLL VGLPYTVVIH YAGNLSETFH GFYKSTYRTK EGELRILAST QFEPTAARMA FPCFDEPAFK ASFSIKIRRE PRHLAISNMP LVKSVTVAEG LIEDHFDVTV KMSTYLVAFI ISDFESVSKI TKSGVKVSVY AVPDKINQAD YALDAAVTLL EFYEDYFSIP YPLPKQDLAA IPDFQSGAME NWGLTTYRES ALLFDAEKSS ASSKLGITMT VAHELAHQWF GNLVTMEWWN DLWLNELGFAK FMEFVSVSVT HPELKVGDYF FGKCFDAMEV DALNSSHPVS TPVENPAQIR EMFDDVSYDK GACILNMLRE YLSADAFKSG IVQYLQKHSY KNTKNEDLWD SMASICPTDG VKGMDGFCRS SQHSSSSSHW HQEGVDVKTM MNTWTLQKGF PLITITVRGR NVHMKQEHYM KGSDGAPDTG YLWHVPLTFI TSKSDMVHRF LLKTKTDVLI LPEEVEWIKF NVGMNGYYIV HYEDDGWDSL TGLLKGTHTA VSSNDRASLI NNAFQLVSIG KLSIEKALDL SLYLKHETEI MPVFQGLNEL IPMYKLMETR DMNEVETQFK AFLIRLLRDL IDKQWTWDEG
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SVSERMLRSQ LLLLACVHNY QPCVQRAEGY FRKWKESNGN LSLPVDVTLA VFAVGAQSTE  
GWDFLYSKYQ FSLSSTESQ IEFALCRTQN KEKLQWLLDE SFKGDKIKTQ EFPQILTIG  
RNPVGYPLAW QFLRKNWNKL VQKFELGSSS IAHMVMGTTN QFSTRTRLEE VKGFFSSLKE  
NGSQLRCVQQ TIETIEENIG WMDKNFDKIR VWLQSEKLER M

**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.

Product Details

- 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. 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:	ERAP1
Alternative Name:	ERAP1 ( <a href="#">ERAP1 Products</a> )
Background:	Endoplasmic reticulum aminopeptidase 1 (EC 3.4.11.-) (ARTS-1) (Adipocyte-derived leucine aminopeptidase) (A-LAP) (Aminopeptidase PILS) (Puromycin-insensitive leucyl-specific aminopeptidase) (PILS-AP) (Type 1 tumor necrosis factor receptor shedding aminopeptidase regulator),FUNCTION: Aminopeptidase that plays a central role in peptide trimming, a step required for the generation of most HLA class I-binding peptides. Peptide trimming is essential to customize longer precursor peptides to fit them to the correct length required for presentation on MHC class I molecules. Strongly prefers substrates 9-16 residues long. Rapidly degrades 13-mer to a 9-mer and then stops. Preferentially hydrolyzes the residue Leu and peptides with a hydrophobic C-terminus, while it has weak activity toward peptides with charged C-terminus. May play a role in the inactivation of peptide hormones. May be involved in the regulation of blood pressure through the inactivation of angiotensin II and/or the generation of bradykinin in the kidney. {ECO:0000269 PubMed:15908954, ECO:0000269 PubMed:16286653, ECO:0000269 PubMed:21478864}.
Molecular Weight:	107.2 kDa
UniProt:	<a href="#">Q9NZ08</a>

## 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.
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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

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)



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