Datasheet for ABIN3124032

# ERI1 Protein (AA 1-345) (Strep Tag)

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## Overview

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| Quantity: | 1 mg |
| Target: | ERI1 |
| Protein Characteristics: | AA 1-345 |
| Origin: | Mouse |
| Source: | Tobacco (Nicotiana tabacum) |
| Protein Type: | Recombinant |
| Purification tag / Conjugate: | This ERI1 protein is labelled with Strep Tag. |
| Application: | Western Blotting (WB), SDS-PAGE (SDS), ELISA |

## Product Details

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| Sequence: | MEDERGRERG GDAAQQKTPR PECEESRPLS VEKKQRCRLD GKETDGSKFI SSNGSDFSDP VYKEIAMTNG CINRMSKEEL RAKLSEFKLE TRGVKDVLKK RLKNYYKKQK LMLKESSAGD SYYDYICIID FEATCEEGNP AEFLHEIIEF PVVLLNTHTL EIEDTFQQYV RPEVNAQLSE FCIGLTGITQ DQVDRADAFP QVLKKVIEWM KSKELGTKYK YCILTDGSWD MSKFLSIQCR LSRLKHPAFA KKWINIRKSY GNFYKVPRSQ TKLTIMLEKL GMDYDGRPHS GLDDSKNIAR IAVRMLQDGC ELRINEKILG GQLMSVSSSL PVEGAPAPQM PHSRK<br>**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:<br>• Made in Germany - from design to production - by highly experienced protein experts.<br>• 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.

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| Purification: | Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®):<br>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.<br>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. |

## Product Details

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

## Target Details

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| Target: | ERI1 |
| Alternative Name: | Eri1 (ERI1 Products) |
| Background: | 3'-5' exoribonuclease 1 (EC 3.1.-.-) (3'-5' exonuclease ERI1) (Eri-1 homolog) (Histone mRNA 3'-exonuclease 1),FUNCTION: RNA exonuclease that binds to the 3'-end of histone mRNAs and degrades them, suggesting that it plays an essential role in histone mRNA decay after replication. A 2' and 3'-hydroxyl groups at the last nucleotide of the histone 3'-end is required for efficient degradation of RNA substrates. Also able to degrade the 3'-overhangs of short interfering RNAs (siRNAs) in vitro, suggesting a possible role as regulator of RNA interference (RNAi). Required for binding the 5'-ACCCA-3' sequence present in stem-loop structure. Able to bind other mRNAs (By similarity). Required for 5.8S rRNA 3'-end processing. Also binds to 5.8s ribosomal RNA (PubMed:18438418). Binds with high affinity to the stem-loop structure of replication-dependent histone pre-mRNAs. In vitro, does not have sequence specificity. In vitro, has weak DNA exonuclease activity. In vitro, shows biphasic kinetics such that there is rapid hydrolysis of the last three unpaired RNA nucleotides in the 39 flanking sequence followed by a much slower cleavage through the stem that occurs over a longer incubation period in the order of hours (By similarity). {ECO:0000250\|UniProtKB:Q8IV48, ECO:0000269\|PubMed:18438418}. |
| Molecular Weight: | 39.5 kDa |
| UniProt: | Q7TMF2 |

## 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. |
| 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.<br>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 |

## Application Details

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| | 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

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| 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) |