Datasheet for ABIN3088255

# EPB41 Protein (AA 1-864) (Strep Tag)

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## Overview

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|---|---|
| Quantity: | 250 µg |
| Target: | EPB41 |
| Protein Characteristics: | AA 1-864 |
| Origin: | Human |
| Source: | Cell-free protein synthesis (CFPS) |
| Protein Type: | Recombinant |
| Purification tag / Conjugate: | This EPB41 protein is labelled with Strep Tag. |
| Application: | Western Blotting (WB), SDS-PAGE (SDS), ELISA |

## Product Details

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| Brand: | AliCE® |
| Sequence: | MTTEKSLVTE AENSQHQQKE EGEEAINSGQ QEPQQEESCQ TAAEGDNWCE QKLKASNGDT PTHEDLTKNK ERTSESRGLS RLFSSFLKRP KSQVSEEEGK EVESDKEKGE GGQKEIEFGT SLDEEIILKA PIAAPEPELK TDPSLDLHSL SSAETQPAQE ELREDPDFEI KEGEGLEECS KIEVKEESPQ SKAETELKAS QKPIRKHRNM HCKVSLLDDT VYECVVEKHA KGQDLLKRVC EHLNLLEEDY FGLAIWDNAT SKTWLDSAKE IKKQVRGVPW NFTFNVKFYP PDPAQLTEDI TRYYLCLQLR QDIVAGRLPC SFATLALLGS YTIQSELGDY DPELHGVDYV SDFKLAPNQT KELEEKVMEL HKSYRSMTPA QADLEFLENA KKLSMYGVDL HKAKDLEGVD IILGVCSSGL LVYKDKLRIN RFPWPKVLKI SYKRSSFFIK IRPGEQEQYE STIGFKLPSY RAAKKLWKVC VEHHTFFRLT STDTIPKSKF LALGSKFRYS GRTQAQTRQA SALIDRPAPH FERTASKRAS RSLDGAAAVD SADRSPRPTS APAITQGQVA EGGVLDASAK KTVVPKAQKE TVKAEVKKED EPPEQAEPEP TEAWKVEKTH IEVTVPTSNG DQTQKLAEKT EDLIRMRKKK RERLDGENIY |

IRHSNLMLED LDKSQEEIKK HHASISELKK NFMESVPEPR PSEWDKRLST HSPFRTLNIN GQIPTGEGPP LVKTQTVTIS DNANAVKSEI PTKDVPIVHT ETKTITYEAA QTDDNSGDLD PGVLLTAQTI TSETPSSTTT TQITKTVKGG ISETRIEKRI VITGDADIDH DQVLVQAIKE AKEQHPDMSV TKVVVHQETE IADE

**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 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®). |
| Purity: | > 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC). |
| Grade: | custom-made |

## Target Details

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| Target: | EPB41 |
| Alternative Name: | EPB41 (EPB41 Products) |
| Background: | Protein 4.1 (P4.1) (4.1R) (Band 4.1) (EPB4.1) (Erythrocyte membrane protein band 4.1),FUNCTION: Protein 4.1 is a major structural element of the erythrocyte membrane skeleton. It plays a key role in regulating membrane physical properties of mechanical stability and deformability by stabilizing spectrin-actin interaction. Recruits DLG1 to membranes. Required for dynein-dynactin complex and NUMA1 recruitment at the mitotic cell cortex during anaphase (PubMed:23870127). {ECO:0000269\|PubMed:23870127}. |
| Molecular Weight: | 97.0 kDa |
| UniProt: | P11171 |

## 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 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.<br>Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol **Might differ depending on protein.** |
| Handling Advice: | Avoid repeated freeze-thaw cycles. |
| Storage: | -80 °C |
| Storage Comment: | Store at -80°C. |
| Expiry Date: | 12 months |