

Datasheet for ABIN3125399  
**RBBP5 Protein (AA 1-538) (Strep Tag)**



[Go to Product page](#)

## Overview

|                               |  |
|-------------------------------|--|
| Quantity:                     | 1 mg   |
| Target:                       | RBBP5  |
| Protein Characteristics:      | AA 1-538                                       |
| Origin:                       | Mouse  |
| Source:                       | Tobacco (Nicotiana tabacum)                    |
| Protein Type:                 | Recombinant                                    |
| Purification tag / Conjugate: | This RBBP5 protein is labelled with Strep Tag. |
| Application:                  | ELISA, Western Blotting (WB), SDS-PAGE (SDS)   |

## Product Details

Sequence: MNLELLESFG QNYPEEADGT LDCISMALTC TFNRWGTLA VGCNDGRIVI WDFLTRGIAK  
IISAHIH PVC SLCWSRDGHK LVSASTDNIV SQWDVLSGDC DQRF RFP SPI LKVQYHPRDQ  
NKVLVCPMKS APVMLT L S DS KHVVL PVDDD SDLN V V ASFD RRGEYIY TGN AKGKILVLKT  
DSQDLVASFR VTTGTSNTTA IKSIEFARKG SCFLINTADR IIRVYDGREI LTCGRDGEPE  
PMQKLQDLVN RTPWKKCCFS GDGEYIVAGS ARQHALYIWE KSIGNLVKIL HGTRGELLDD  
VAWHPVRPII ASSSGV VSI WAQNQVENWS AFAPDFKELD ENVEYEERES EFDIEDEDKS  
EPEQTGADAA EDEEVDVTSV DPAAFCSSD EELEDSKALL YLPIAPEVED PEENPYGPPP  
DAVPSSLMDE GASSEKQRQS SADGSQPPKK KP KTTNIELQ GVPNDEVHPL LGVKGDGKSK  
KKQAGRPKGS KGKEKDSPFK PKLYKGDRGL PLEGSTKGKV QAELS QLAA GGAISELL

**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.
- 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

## Product Details

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Western blot.

Purity:  $\geq 80\%$  as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

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

## Target Details

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Target: RBBP5

Alternative Name: Rbbp5 ([RBBP5 Products](#))

Background: Retinoblastoma-binding protein 5 (RBBP-5),FUNCTION: In embryonic stem (ES) cells, plays a crucial role in the differentiation potential, particularly along the neural lineage, regulating gene induction and H3 'Lys-4' methylation at key developmental loci, including that mediated by retinoic acid (PubMed:21335234). Does not affect ES cell self-renewal (PubMed:21335234). Component or associated component of some histone methyltransferase complexes which regulates transcription through recruitment of those complexes to gene promoters (By similarity). As part of the MLL1/MLL complex, involved in mono-, di- and trimethylation at 'Lys-4' of histone H3 (By similarity). Histone H3 'Lys-4' methylation represents a specific tag for epigenetic transcriptional activation (By similarity). In association with ASH2L and WDR5, stimulates the histone methyltransferase activities of KMT2A, KMT2B, KMT2C, KMT2D, SETD1A and SETD1B (By similarity). {ECO:0000250|UniProtKB:Q15291, ECO:0000269|PubMed:21335234}.

Molecular Weight: 59.1 kDa

UniProt: [Q8BX09](#)

## 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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## Application Details

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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)