Datasheet for ABIN3094938

# RC3H2 Protein (AA 1-1191) (Strep Tag)

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## Overview

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| Quantity: | 250 µg |
| Target: | RC3H2 |
| Protein Characteristics: | AA 1-1191 |
| Origin: | Human |
| Source: | Cell-free protein synthesis (CFPS) |
| Protein Type: | Recombinant |
| Purification tag / Conjugate: | This RC3H2 protein is labelled with Strep Tag. |
| Application: | ELISA, SDS-PAGE (SDS), Western Blotting (WB) |

## Product Details

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| Brand: | AliCE® |
| Sequence: | MPVQAAQWTE FLSCPICYNE FDENVHKPIS LGCSHTVCKT CLNKLHRKAC PFDQTAINTD IDVLPVNFAL LQLVGAQVPD HQSIKLSNLG ENKHYEVAKK CVEDLALYLK PLSGGKGVAS LNQSALSRPM QRKLVTLVNC QLVEEEGRVR AMRAARSLGE RTVTELILQH QNPQQLSANL WAAVRARGCQ FLGPAMQEEA LKLVLLALED GSALSRKVLV LFVVQRLEPR FPQASKTSIG HVVQLLYRAS CFKVTKRDED SSLMQLKEEF RSYEALRREH DAQIVHIAME AGLRISPEQW SSLLYGDLAH KSHMQSIIDK LQSPESFAKS VQELTIVLQR TGDPANLNRL RPHLELLANI DPNPDAVSPT WEQLENAMVA VKTVVHGLVD FIQNYSRKGH ETPQPQPNSK YKTSMCRDLR QQGGCPRGTN CTFAHSQEEL EKYRLRNKKI NATVRTFPLL NKVGVNNTVT TTAGNVISVI GSTETTGKIV PSTNGISNAE NSVSQLISRS TDSTLRALET VKKVGKVGAN GQNAAGPSAD SVTENKIGSP PKTPVSNVAA TSAGPSNVGT ELNSVPQKSS PFLTRVPVYP PHSENIQYFQ DPRTQIPFEV PQYPQTGYYP PPPTVPAGVA PCVPRFVRSN NVPESSLPPA SMPYADHYST |

FSPRDRMNSS PYQPPPPQPY GPVPPVPSGM YAPVYDSRRI WRPPMYQRDD IIRSNSLPPM DVMHSSVYQT SLRERYNSLD GYYSVACQPP SEPRTTVPLP REPCGHLKTS CEEQIRRKPD QWAQYHTQKA PLVSSTLPVA TQSPTPPSPL FSVDFRADFS ESVSGTKFEE DHLSHYSPWS CGTIGSCINA IDSEPKDVIA NSNAVLMDLD SGDVKRRVHL FETQRRTKEE DPIIPFSDGP IISKWGAISR SSRTGYHTTD PVQATASQGS ATKPISVSDY VPYVNAVDSR WSSYGNEATS SAHYVERDRF IVTDLSGHRK HSSTGDLLSL ELQQAKSNSL LLQREANALA MQQKWNSLDE GRHLTLNLLS KEIELRNGEL QSDYTEDATD TKPDRDIELE LSALDTDEPD GQSEPIEEIL DIQLGISSQN DQLLNGMAVE NGHPVQQHQK EPPKQKKQSL GEDHVILEEQ KTILPVTSCF SQPLPVSISN ASCLPITTSV SAGNLILKTH VMSEDKNDFL KPVANGKMVN S

**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!

## Product Details

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| | Concentration:<br>• The concentration of our recombinant proteins is measured using the absorbance at 280nm.<br>• The protein's absorbance will be measured against its specific reference buffer.<br>• We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein. |
| 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: | RC3H2 |
| Alternative Name: | RC3H2 (RC3H2 Products) |
| Background: | Roquin-2 (EC 2.3.2.27) (Membrane-associated nucleic acid-binding protein) (RING finger and CCCH-type zinc finger domain-containing protein 2) (RING finger protein 164) (RING-type E3 ubiquitin transferase Roquin-2),FUNCTION: Post-transcriptional repressor of mRNAs containing a conserved stem loop motif, called constitutive decay element (CDE), which is often located in the 3'-UTR, as in HMGXB3, ICOS, IER3, NFKBID, NFKBIZ, PPP1R10, TNF and in many more mRNAs. Binds to CDE and promotes mRNA deadenylation and degradation. This process does not involve miRNAs. In follicular helper T (Tfh) cells, represses of ICOS and TNFRSF4 expression, thus preventing spontaneous Tfh cell differentiation, germinal center B-cell differentiation in the absence of immunization and autoimmunity. In resting or LPS-stimulated macrophages, controls inflammation by suppressing TNF expression. Also recognizes CDE in its own mRNA and in that of paralogous RC3H1, possibly leading to feedback loop regulation (By similarity). miRNA-binding protein that regulates microRNA homeostasis. Enhances DICER-mediated processing of pre-MIR146a but reduces mature MIR146a levels through an increase of 3' end uridylation. Both inhibits ICOS mRNA expression and they may act together to exert the suppression (PubMed:25697406). Acts as a ubiquitin E3 ligase. Pairs with E2 enzymes UBE2B, UBE2D2, UBE2E2, UBE2E3, UBE2G2, UBE2K and UBE2Q2 and produces polyubiquitin chains (PubMed:26489670). Shows the strongest activity when paired with UBE2N:UBE2V1 or UBE2N:UBE2V2 E2 complexes and generate both short and long polyubiquitin chains (PubMed:26489670). Involved in the ubiquitination of MAP3K5 (PubMed:24448648, PubMed:26489670, PubMed:29186683). Able to interact with double-stranded RNA (dsRNA) (PubMed:26489670). {ECO:0000250\|UniProtKB:P0C090, ECO:0000269\|PubMed:24448648, |

## Target Details

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| | ECO:0000269\|PubMed:26489670, ECO:0000269\|PubMed:29186683}. |
| Molecular Weight: | 131.7 kDa |
| UniProt: | Q9HBD1 |

## 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 |