

Datasheet for ABIN7563785

RC3H1 Protein (AA 1-1130) (His tag)



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Overview

Quantity:	1 mg
Target:	RC3H1
Protein Characteristics:	AA 1-1130
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This RC3H1 protein is labelled with His tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Purpose:	Custom-made recombinat Rc3h1 Protein expressed in mammalian cells.
Sequence:	MPVQAPQWTD FLSCPICTQT FDETIRKPIS LGCGHTVCKM CLNKLHRKAC PFDQTTINTD IELLPVNSAL LQLVGAQIPE QQPITLCSGV EDTKHYYEAK KCVEELALYL KPLSSARGVG LNSTTQSVLS RPMQRKLVTL VHCQLVEEEG RIRAMRAARS LGERTVTELI LQHQNPPQLS SNLWAAVRAR GCQFLGPAMQ EEALKLVLLA LEDGSALSRK VLVLFVVQRL EPRFPQASKT SIGHVVQLLY RASCFKVTKR DEDSSMLQLK EEFRTYEALR REHDSQIVQI AMEAGLRIAP DQWSSLLYGD QSHKSHMQSI IDKLQTPASF AQSVQELTIA LQRTGDPANL NRLRPHLELL ANIDPSPDAP PPTWEQLENG LVAVRTVWHG LVDYIQNHKS KGADQQQPPQ HSKYKTYMCR DMKQRGGCPR GASCTFAHSQ EELEKFRKMN KRLVPRRPLS ASLGQLNEVG LPSAPILSDE SAVDLSNRKP PALPNGIASS GSTVTQLIPR GTDPSFDSSL KPVKLDHLSS SAPGSPPDLL ESAPKSISAL PVNPHPVPPR GPTDLPPMPV TKPIQMVPRG SQLYPAQQAD VYYQDPRGSA PAFETAPYQQ GMYTTPPCV SRFVRPPPSA PEGPPYLDH YSPYLQDRV I NSQYGTQPQQ

YPPMYPAHYD GRRVYPAQSY TREEMFRESP IPIDIPSAAV PSYVPESRER YQQVEGYYPV
APHPAQIRPS YPRDPPYSRL PPPQPHPSLD ELHRRRKEIM AQLEERKVIS PPPFAPSPTL
PPAFHPEEFL DEDLKVAGKY KANDYSQYSP WSCDTIGSYI GTKDAKPKDV VAAGSVEMMN
VESKGTREQR LDLQRRAVET SDDDLPFGD RPTVSRFGAI SRTSKTLYQG AGPLQAIAPQ
GAPTKSINIS DYSAYGAHGG WGDSPYSPHA NIPPQGHFIE REKMSMAEVA SHGKPLLSAE
REQLRLELQQ LNHQISQQTQ LRGLEAVSNR LVLQREVNTL ASQPQPQLP PKWPGMISSE
QLSLELHQVE REIGKRTREL SMENQCSVDM KSKLGTSKQA ENGQPEPQNK IRTEDLTTF
SDVPNGSALT QENLSLLSNK TSSLNLSEDS EGGGDNDSQ RSGVVSNSAP **Sequence without tag. The proposed Purification-Tag is based on experiences 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 to order protein - from design to production - by highly experienced protein experts.
- Protein expressed in mammalian cells and purified in one-step affinity chromatography
- The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.
- 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.

If you are not interested in a full length protein, please contact us for individual protein fragments.

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.

Purity:

> 90 % as determined by Bis-Tris Page, Western Blot

Grade:

custom-made

Target Details

Target:

RC3H1

Alternative Name:

Rc3h1 ([RC3H1 Products](#))

Background:

Roquin-1 (Roquin) (EC 2.3.2.27) (Protein Sanroque) (RING finger and C3H zinc finger protein 1) (RING finger and CCCH-type zinc finger domain-containing protein 1),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, TNFRSF4 and in many more mRNAs (PubMed:23663784, PubMed:25026077, PubMed:18172933). Cleaves translationally inactive mRNAs harboring a stem-loop (SL), often located in their 3'-UTRs, during the early phase of inflammation in a helicase UPF1-independent manner (PubMed:26000482). Binds to CDE and promotes mRNA deadenylation and degradation. This process does not involve miRNAs (PubMed:20412057, PubMed:20639877). In follicular helper T (Tfh) cells, represses of ICOS and TNFRSF4/Ox40 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 RC3H2, possibly leading to feedback loop regulation (PubMed:23583642, PubMed:23583643, PubMed:15917799). Inhibits cooperatively with ZC3H12A the differentiation of helper T cells Th17 in lungs. They repress target mRNA encoding the Th17 cell-promoting factors IL6, ICOS, REL, IRF4, NFKBID and NFKBIZ. The cooperation requires RNA-binding by RC3H1 and the nuclease activity of ZC3H12A (PubMed:25282160). Recognizes and binds mRNAs containing a hexaloop stem-loop motif, called alternative decay element (ADE) (PubMed:27010430). Together with ZC3H12A, destabilizes TNFRSF4/OX40 mRNA by binding to the conserved stem loop structure in its 3'UTR (PubMed:29244194). Able to interact with double-stranded RNA (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 UBE2A, UBE2B, UBE2D2, UBE2F, UBE2G1, UBE2G2 and UBE2L3 and produces polyubiquitin chains. Shows the strongest activity when paired with UBE2N:UBE2V1 or UBE2N:UBE2V2 E2 complexes and generate both short and long polyubiquitin chains (By similarity).

{ECO:0000250|UniProtKB:Q5TC82, ECO:0000269|PubMed:15917799, ECO:0000269|PubMed:18172933, ECO:0000269|PubMed:20412057, ECO:0000269|PubMed:20639877, ECO:0000269|PubMed:23583642, ECO:0000269|PubMed:23583643, ECO:0000269|PubMed:23663784, ECO:0000269|PubMed:25026077, ECO:0000269|PubMed:25282160, ECO:0000269|PubMed:25697406, ECO:0000269|PubMed:26000482, ECO:0000269|PubMed:27010430, ECO:0000269|PubMed:29244194}.

Molecular Weight:	125.4 kDa
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Target Details

UniProt:	Q4VGL6
Pathways:	Ribonucleoprotein Complex Subunit Organization, Activated T Cell Proliferation

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.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months