OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for RG211698

RC3H2 (NM_001100588) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Tag:	TurboGFP
Symbol:	RC3H2
Synonyms:	MNAB; RNF164
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>RG211698 representing NM_001100588
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCCTGTGCAGGCAGCTCAATGGACAGAATTTCTGTCCTGTCCAATCTGCTATAATGAATTTGATGAGA
ATGTGCACAAACCCATCAGTTTAGGTTGTTCACACACTGTTTGCAAGACCTGCTTGAATAAACTTCATCG
AAAAGCTTGTCCTTTTGACCAGACTGCCATCAACACAGATATTGATGTACTTCCTGTCAACTTCGCACTT
CTCCAGTTAGTTGGAGCCCAGGTACCAGATCATCAGTCAATTAAGTTAAGTAATCTAGGTGAGAATAAAC
ACTATGAGGTTGCAAAGAAATGCGTTGAGGATTTGGCACTCTACTTAAAACCACTAAGTGGAGGTAAAGG
TGTAGCTAGCTTGAACCAGAGTGCACTGAGCCGTCCAATGCAAAGGAAACTGGTGACACTTGTAAACTGT
CAACTGGTGGAGGAAGAAGGTCGTGTAAGAGCCATGCGAGCAGCTCGTTCCCTTGGAGAAAGAACTGTAA
CAGAACTGATATTACAGCACCAGAACCCTCAGCAGTTGTCTGCCAATCTATGGGCCGCTGTCAGGGCTCG
AGGATGCCAGTTTTTAGGGCCAGCTATGCAAGAAGAGGCCTTGAAGCTGGTGTTACTGGCATTAGAAGAT
GGTTCTGCCCTCTCAAGGAAAGTTCTGGTACTTTTTGTTGTGCAGAGACTAGAACCAAGATTTCCTCAGG
CATCAAAAACAAGTATTGGTCATGTTGTGCAACTACTGTATCGAGCTTCTTGTTTTAAGGTTACCAAAAG
AGATGAAGACTCTTCCCTAATGCAGCTGAAGGAGGAATTTCGGAGTTATGAAGCATTACGCAGAGAACAT
GATGCCCAAATTGTTCATATTGCCATGGAAGCAGGACTCCGTATTTCACCTGAACAGTGGTCCTCTCTTT
TGTATGGTGATTTGGCTCATAAATCACACATGCAGTCTATCATTGATAAGCTACAGTCTCCAGAGTCATT
TGCAAAGAGTGTCCAGGAATTGACAATTGTTTTGCAACGAACAGGTGACCCAGCTAACTTAAATAGACTG
AGGCCTCATTTAGAGCTTCTTGCAAACATAGACCCTAATCCAGACGCTGTTTCACCAACTTGGGAGCAGC
TGGAAAATGCAATGGTAGCTGTTAAAACAGTAGTTCATGGCCTTGTGGACTTCATACAAAATTATAGTAG
AAAAGGCCATGAGACCCCTCAGCCTCAGCCAAACAGCAAATACAAGACTAGCATGTGCCGAGATTTGCGA
CAGCAAGGGGGTTGTCCACGAGGAACAAATTGTACATTTGCCCATTCTCAGGAAGAGCTTGAAAAGTATC
GATTAAGGAACAAAAAGATCAATGCCACTGTAAGAACGTTTCCTCTTCTAAATAAAGTTGGTGTAAACAA
CACTGTCACAACCACAGCCGGAAATGTCATTTCTGTCATAGGAAGTACTGAAACAACAGGGAAAATTGTT
CCAAGTACAAACGGAATTTCAAATGCAGAAAACAGTGTTTCCCAGCTAATCTCACGTAGTACTGACAGTA

View online »

CCTTAAGAGCTCTGGAGACCGTGAAGAAAGTGGGAAAGGTTGGCGCTAATGGTCAGAATGCTGCTGGGCC
CTCTGCAGATTCTGTAACTGAAAATAAAATTGGTTCTCCACCCAAGACTCCTGTAAGTAATGTAGCAGCT
ACCTCAGCTGGGCCCTCTAATGTTGGAACAGAGCTGAATTCTGTGCCTCAAAAATCCAGCCCATTTCTAA
CTAGAGTACCAGTATATCCTCCGCATTCTGAAAACATTCAGTATTTTCAAGATCCAAGGACTCAGATACC
CTTTGAAGTCCCACAGTACCCACAGACAGGATACTATCCACCACCTCCAACGGTACCAGCTGGTGTGGCT
CCCTGTGTTCCTCGCTTTGTGAGGTCCAATAACGTTCCAGAGTCCTCCCTCCCACCTGCTTCCATGCCAT
ATGCCGATCATTACAGTACATTTTCCCCTCGAGATCGAATGAATTCTTCTCCTTACCAGCCTCCTCCTCC
GCAGCCGTATGGACCAGTTCCTCCAGTACCTTCTGGAATGTATGCTCCTGTGTACGACAGCAGGCGCATC
TGGCGCCCACCTATGTACCAACGAGATGACATTATTAGAAGCAATTCTTTACCTCCAATGGATGTGATGC
ACTCATCTGTCTATCAGACATCTTTGCGGGAAAGATATAACTCATTAGATGGATATTATTCGGTGGCTTG
TCAGCCACCAAGTGAGCCAAGGACAACTGTGCCTTTACCAAGGGAACCTTGTGGTCATTTGAAGACCAGT
TGCGAGGAGCAGATAAGAAGAAAGCCAGATCAGTGGGCACAGTACCACACTCAGAAAGCACCTCTTGTCT
CTTCAACTCTTCCTGTGGCAACACAGTCACCAACACCACCTTCTCCTCTGTTCAGTGTAGACTTTCGTGC
GGATTTCTCAGAGAGTGTGAGTGGTACAAAATTTGAAGAAGATCATCTTTCCCATTATTCTCCCTGGTCT
TGTGGCACCATAGGCTCCTGTATAAATGCCATTGATTCAGAGCCCAAAGATGTCATTGCTAATTCAAATG
CTGTGTTAATGGACCTGGACAGTGGTGATGTTAAGAGAAGAGTACATTTATTTGAAACCCAGAGAAGGAC
AAAAGAAGAAGATCCAATAATTCCCTTTAGTGATGGACCCATCATCTCAAAATGGGGTGCGATTTCCAGA
TCTTCCCGTACAGGTTACCATACCACAGATCCTGTCCAGGCCACTGCTTCCCAAGGAAGTGCGACTAAGC
CCATCAGTGTATCAGATTATGTCCCTTATGTCAATGCTGTTGATTCAAGGTGGAGTTCATATGGCAACGA
GGCCACATCATCAGCACACTATGTTGAAAGGGACAGATTCATTGTTACTGATTTATCTGGTCATAGAAAG
CATTCCAGTACTGGGGACCTTTTGAGCCTTGAACTTCAGCAGGCCAAGAGCAACTCATTACTTCTTCAGA
GAGAGGCCAATGCTTTGGCCATGCAACAGAAGTGGAATTCCCTGGATGAAGGCCGTCACCTTACCTTAAA
CCTTTTAAGCAAGGAAATTGAACTAAGAAATGGAGAGTTACAGAGTGATTATACAGAAGATGCAACAGAT
ACTAAACCTGATAGGGATATCGAGTTAGAGCTTTCAGCACTTGATACTGATGAACCTGATGGACAAAGTG
AACCAATTGAAGAGATCTTGGACATACAGCTTGGTATCAGTTCTCAAAATGATCAGTTGCTAAATGGAAT
GGCAGTGGAAAATGGGCATCCAGTACAGCAGCACCAAAAGGAGCCACCAAAGCAGAAGAAACAGAGTTTA
GGTGAAGACCATGTGATTCTGGAGGAGCAAAAAACAATTCTGCCGGTAACTTCTTGCTTTAGCCAGCCAC
TCCCAGTGTCTATTAGCAATGCAAGTTGCCTCCCCATCACCACATCTGTCAGTGCTGGCAACCTCATTCT
GAAAACTCATGTTATGTCTGAAGATAAAAACGACTTTTTAAAACCTGTTGCAAATGGGAAGATGGTTAAC
AGC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

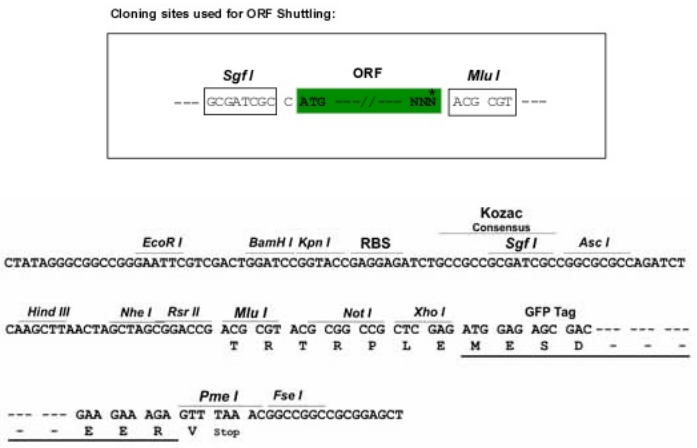
>RG211698 representing NM_001100588
Red=Cloning site Green=Tags(s)

MPVQAAQWTEFLSCPICYNEFDENVHKPISLGCSHTVCKTCLNKLHRKACPFDQTAINTDIDVLPVNFAL
LQLVGAQVPDHQSIKLSNLGENKHYEVAKKCVEDLALYLKPLSGGKGVASLNQSALSRPMQRKLVTLVNC
QLVEEEGRVRAMRAARSLGERTVTELILQHQNPQQLSANLWAAVRARGCQFLGPAMQEEALKLVLLALED
GSALSRKVLVLFVVQRLEPRFPQASKTSIGHVVQLLYRASCFKVTKRDEDSSLMQLKEEFRSYEALRREH
DAQIVHIAMEAGLRISPEQWSSLLYGDLAHKSHMQSIIDKLQSPESFAKSVQELTIVLQRTGDPANLNRL
RPHLELLANIDPNPDAVSPTWEQLENAMVAVKTVVHGLVDFIQNYSRKGHETPQPQPNSKYKTSMCRDLR
QQGGCPRGTNCTFAHSQEELEKYRLRNKKINATVRTFPLLNKVGVNNTVTTTAGNVISVIGSTETTGKIV
PSTNGISNAENSVSQLISRSTDSTLRALETVKKVGKVGANGQNAAGPSADSVTENKIGSPPKTPVSNVAA
TSAGPSNVGTELNSVPQKSSPFLTRVPVYPPHSENIQYFQDPRTQIPFEVPQYPQTGYYPPPPTVPAGVA
PCVPRFVRSNNVPESSLPPASMPYADHYSTFSPRDRMNSSPYQPPPPQPYGPVPPVPSGMYAPVYDSRRI
WRPPMYQRDDIIRSNSLPPMDVMHSSVYQTSLRERYNSLDGYYSVACQPPSEPRTTVPLPREPCGHLKTS
CEEQIRRKPDQWAQYHTQKAPLVSSTLPVATQSPTPPSPLFSVDFRADFSESVSGTKFEEDHLSHYSPWS
CGTIGSCINAIDSEPKDVIANSNAVLMDLDSGDVKRRVHLFETQRRTKEEDPIIPFSDGPIISKWGAISR
SSRTGYHTTDPVQATASQGSATKPISVSDYVPYVNAVDSRWSSYGNEATSSAHYVERDRFIVTDLSGHRK
HSSTGDLLSLELQQAKSNSLLLQREANALAMQQKWNSLDEGRHLTLNLLSKEIELRNGELQSDYTEDATD
TKPDRDIELELSALDTDEPDGQSEPIEEILDIQLGISSQNDQLLNGMAVENGHPVQQHQKEPPKQKKQSL
GEDHVILEEQKTILPVTSCFSQPLPVSISNASCLPITTSVSAGNLILKTHVMSEDKNDFLKPVANGKMVN
S

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001100588

ORF Size: 3573 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

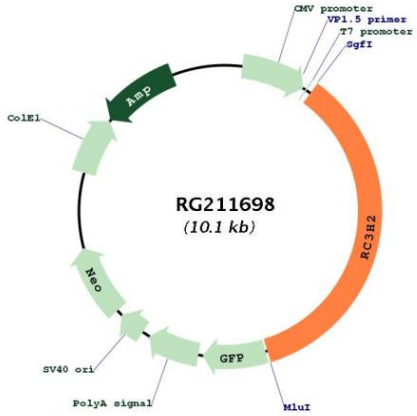
Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq:	NM_001100588.3
RefSeq Size:	3991 bp
RefSeq ORF:	3576 bp
Locus ID:	54542
UniProt ID:	Q9HBD1
Cytogenetics:	9q33.2
Protein Families:	Druggable Genome
Gene Summary:	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). Show 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) (By similarity). Able to interact with double-stranded RNA (dsRNA) (PubMed:26489670).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RG211698