

Product datasheet for MC223701

Rc3h1 (NM_001024952) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Rc3h1 (NM_001024952) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Rc3h1
Synonyms:	5730557L09Rik; Gm551; mKIAA2025; N28103
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>MC223701 representing NM_001024952 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCTGTACAAGCTCCACAATGGACGGATTTCTTTCTGCCCAATTTGCACTCAGACTTTGACGAAA
CAATTCGAAAGCCCATCAGTTTGGGCTGTGCCATACTGTCTGCAAAATGTGCCTGAATAAACTCCACCG
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ACGGCTACGGCGCGCTCGAGCAGAAAACCTATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** SgfI-MluI
- ACCN:** NM_001024952
- Insert Size:** 3393 bp
- OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
- 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.

RefSeq: [NM_001024952.2](#), [NP_001020123.1](#)

RefSeq Size: 11011 bp

RefSeq ORF: 3393 bp

Locus ID: 381305

UniProt ID: [Q4VGL6](#)

Cytogenetics: 1 H2.1

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, 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). 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. Show the strongest activity when paired with UBE2N:UBE2V1 or UBE2N:UBE2V2 E2 complexes and generate both short and long polyubiquitin chains (By similarity).[UniProtKB/Swiss-Prot Function]