

Product datasheet for **MC224527**

Zcchc6 (NM_153538) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Zcchc6 (NM_153538) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Zcchc6
Synonyms:	6030448M23Rik; AA420405
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
Fully Sequenced ORF:	>MC224527 representing NM_153538 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**GCGATCGC**C

ATGGGAGATACAGCAAAACCTTACTTTGTGAAGCGCACTAAAGACCGTGAATTATTGATGATGATGATT
TCAGAAGGGGCCATCCCAACAAGATTATTTAATAATGGATGATTATGCTAAAGGCCATAGCAGTAAAAT
GGAAAAGGGCCTTCCAAAAAGAAGATATCACCGGGAATATGGGAACACCCCAAGAAAGGACTGTAT
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GCCCGGACCTAGGATTCTGTCTAAGCCGCTCAAGGAAGGAATCCTTTCAGGAAAGTGACGATGCCCTAC
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GACTAGAACGGAGGACAGTGAGCAGGATGGAGATCTGGACGGTCTGTCTCAGCAGTCTGTCTTTCA
ACCAAGGAGCTGTTGGCCTCCAGCAGGCTGAGGAACGGCTCAAGAGAGACTGCATCGACAGGCTGAAAA
GGCGACCAGAACTGCCCGACAGCAAAGTATACCTGCAAACGTGCGATGCTTTGATTGACTCCATTCC
GTTTGCTCATAAGCACATCAAGGAGAAGAGGCACAAGAAGAACCTTAAGGAAAAGCAGGAGGAAGAATTG
CTCACCACTGCCCGCCAGCGCCCTCCAGATACATGCAGTTGGCAGCGCCATTGACAGAGTGGTGC
AGGAGTTTGGTTACACAGTAAAACTGGATCAGAGACTAGAAATTAAGCGTGTGATGAAAGTGTGTT
CCGGCACAAGCTACCAGACTGTTCTCTTAGGCTTTATGGATCCTCCTGTAGCCGACTGGGCTTCAGAGAC
TCTGACGTGAACATTGATGTTCCAGTTCAGCTGTCTCAGCCAGATGTCCTCTTACTTGTTCAG
AATGTTTAAAGAACAGTGACTCCTTTATTGATGTTGATGCTGATTTCCATGCCCGGGTCCCTGTGGTGGT
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TTTCTTCTTCAGCAAAGAAAAGAACCTCTCTTGCCAGTTTATCTAGGATCATGGATTGAGAATTCTCA
TAAATAAATTAGGAATTTAGCCTTAAAGATGTTGAGAAAGACTCTGTGGTCTGGGAATACACTGACA



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ACAGCACAGGGGACACCAGCTCAGCAAAAAGAGGAGGCACCCAAAGAGACTGCAGCAAAGAAGGGACAGGT
 GCCATTGACATTTAATAATAAAGCATCAGCCTTCAGTGCCAGTCGGGCAACTCTGGGTGGAATTGCTGCGG
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 GAGGAGGTGGGAAGCCAGCAAAGGAGAAGACAGGAGGTGTGCACATCCCAGCCCACCAGGAGAGCTCTG
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 AAGCACCCAGAAGTGCAGAACTGTGGCAGCCTGTGTGGTCTGCAGGCAGACAACACTCTGGAGTTAGTAG
 CTGAAGAGTGAATAGCTGTGCCTCTTTGGACAACAAGGCTGAGGTCAATGAAGAGAGGATAGAAGGCGC
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 AGGACTGTCCATGAGGAGGAAAGTGAAGGACGAGAGACCAGGAAGATACCCCAACCAAGGTAAGTCA
 TGAGAGCAAAGAAAAAGCAAGAGGACAAAGAGATTGAGAACAAGTACACAGAAAAGGAAGTGTCA
 ACAAAGAAGATAAGCTCACACCGTGTGCAGCTGCGAAAGCCAAGCCAGTGAAGGCAAGTGTGACCTGG
 GCCGGGAGAAGCTCCTCAGGACGCCACAGAAAAGTGAAGAGACAGGACGACAGAGACTCGAGAGAAAA
 GCGTTGTTTCATCTGTGAAGAGAAGGACACATTAATAAGGAATGCCACAGTTCAAAGGCTCTCCAGGC
 AGTGCTTTTACATGA

AGCGGACCGACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
 TGGATTACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-RsrII
ACCN: NM_153538
Insert Size: 4425 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:	<ol style="list-style-type: none">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:	<u>NM_153538.3</u> , <u>NP_705766.3</u>
RefSeq Size:	5569 bp
RefSeq ORF:	4425 bp
Locus ID:	214290
UniProt ID:	<u>Q5BLK4</u>
Cytogenetics:	13 B2

Gene Summary:

Uridyltransferase that mediates the terminal uridylation of mRNAs with short (less than 25 nucleotides) poly(A) tails, hence facilitating global mRNA decay (PubMed:28792939). Essential for both oocyte maturation and fertility. Through 3' terminal uridylation of mRNA, sculptors, with TUT7, the maternal transcriptome by eliminating transcripts during oocyte growth (PubMed:28792939). Involved in microRNA (miRNA)-induced gene silencing through uridylation of deadenylated miRNA targets. Also acts as a suppressor of miRNA biogenesis by mediating the terminal uridylation of miRNA precursors, including that of let-7 (pre-let-7) (PubMed:22898984). Uridylated pre-let-7 RNA is not processed by Dicer and undergo degradation. Pre-let-7 uridylation is strongly enhanced in the presence of LIN28A. Due to functional redundancy between ZCCHC6 and ZCCHC11, the identification of the specific role of each of these proteins is difficult (By similarity) (PubMed:22898984). Involved in microRNA (miRNA)-induced gene silencing through uridylation of deadenylated miRNA targets (By similarity). Also functions as an integral regulator of microRNA biogenesis using 3 different uridylation mechanisms (By similarity). Acts as a suppressor of miRNA biogenesis by mediating the terminal uridylation of some miRNA precursors, including that of let-7 (pre-let-7). Uridylated pre-let-7 RNA is not processed by Dicer and undergo degradation. Pre-let-7 oligouridylation is strongly enhanced in the presence of LIN28A (PubMed:22898984). In the absence of LIN28A, TUT7 and TUT4 monouridylate group II pre-miRNAs, which includes most of pre-let7 members, that shapes an optimal 3' end overhang for efficient processing (By similarity). Add oligo-U tails to truncated pre-miRNAs with a 5' overhang which may promote rapid degradation of non-functional pre-miRNA species (By similarity). Does not play a role in replication-dependent histone mRNA degradation (By similarity). Due to functional redundancy between TUT4 and TUT7, the identification of the specific role of each of these proteins is difficult (PubMed:28792939, PubMed:22898984). TUT4 and TUT7 restrict retrotransposition of long interspersed element-1 (LINE-1) in cooperation with MOV10 counteracting the RNA chaperone activity of L1RE1. TUT7 uridylates LINE-1 mRNAs in the cytoplasm which inhibits initiation of reverse transcription once in the nucleus, whereas uridylation by TUT4 destabilizes mRNAs in cytoplasmic ribonucleoprotein granules (By similarity).[UniProtKB/Swiss-Prot Function]