

## Product datasheet for SC211291

### TUT7 (NM\_024617) Human 3' UTR Clone

#### Product data:

Product Type:	3' UTR Clones
Product Name:	TUT7 (NM_024617) Human 3' UTR Clone
Symbol:	TUT7
Synonyms:	PAPD6; TENT3B; ZCCHC6
Mammalian Cell Selection:	Neomycin
Vector:	pMirTarget (PS100062)
ACCN:	NM_024617
Insert Size:	974 bp
Insert Sequence:	<p>&gt;SC211291 3'UTR clone of NM_024617</p> <p>The sequence shown below is from the reference sequence of NM_024617. The complete sequence of this clone may contain minor differences, such as SNPs.</p> <p>Blue=Stop Codon Red=Cloning site</p>

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GGCAAGTTGGACGCCGCAAGATCCGCGAGATTCTCATTAAGGCCAAGAAGGGCGGAAAGATCGCCGTG
TAACAATTGGCAGAGCTCAGAATTCAAACGATCGCC
TCAGCGAAGAGGACCCAGCAGGAATCATAGGGAAGGAAAATGCAGCACTCTAAATGGCCACTCAGGCG
TTCCTATTCAGTGGAAAATTAGGTTTCATTTACAGGACACAGCAGTGTAGATCAGGCTTCACTTAAC
ATTTAAGGGAAATGTCAGATTTTTTTTTAATTTAATGAAATTGTTAATGAGGAAAAATTTTAAATATAG
TCTTATCTACCACACATCCCATAGATTTAAGGATTTTAAATAGAAAGACATGATGTATGTATTTAAGCC
ACGTTAAAGAAAAAATAAATATGACCGGTATTCAGTGAATACAGTTTCATGGTTTTTAATCTTT
CAAAGCACATTAAAAATGGTGTGCTGATAAACCCCAAGTAAATTAACCTTTTTCCGTATAAATCCATT
TTTTGTTTTGAAGAGGGGAAATTATATTATTGTTGTTTACTGAATCCTGGTGTGAAAGCATATCAGAT
ATGTATGAACGTGCTACTGCTGTAATTCGATTTACGGACATCATTTTATTGCTATTTGTAGACGTGATA
ACATGAACATGAGTACCTATTTATGTGGCCTTCAGTGGATGGGAGTGGCACTCAGGTCCTCTGGGGTT
TCCCTCTCTAATTTTAAGTAAATTGACATATACTACTATGCTTATAAAATGAAGTAAGGAAAAACAAG
TAGTCCTGTTTGCCACTAAAAACATTTTCAAAGGAAAAATAAAATGAAAGTACTTTTTACTTTTTATGA
TACTCAGAAATTAGGATGAAGAACTTTTAAATTTGCTGAAGATCAAAGAGGTTATCTCTGCCAGTCACA
AGTGTGGCTGGTGTCTATTCTGGGTCTGACTGGAGCCCTCCTGGACTGTTTCTTTAATTTCAAAGCCCT
GCAGACATAGTACCTGGTCAGAACTATGCCTCGGTTTATTATCATTTTGAAATAAAATCAGAATTTCA
ACCTGTAA
ACGCGTAAGCGGCCGCGGCATCTAGATTCAAGAAAAATGACCGACCAAGCGACGCCAACCTGCCATCA
CGAGATTCGATTCCACCGCCGCTTCTATGAAAGG
  
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Restriction Sites: SgfI-MluI



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<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the sequence identifier above as a point of reference. Note that the complete sequence of this clone is largely the same as the reference sequence but may contain minor differences , e.g., single nucleotide polymorphisms (SNPs).
<b>Components:</b>	The cDNA clone is shipped in a 2-D bar-coded Matrix tube as 10 ug dried plasmid DNA. The package also includes 100 pmols of both the corresponding 5' and 3' vector primers in separate vials.
<b>RefSeq:</b>	<u><a href="#">NM_024617.4</a></u>
<b>Summary:</b>	Uridyltransferase that mediates the terminal uridylation of mRNAs with short (less than 25 nucleotides) poly(A) tails, hence facilitating global mRNA decay (PubMed:19703396, PubMed:25480299). Essential for both oocyte maturation and fertility. Through 3' terminal uridylation of mRNA, sculpts, with TUT7, the maternal transcriptome by eliminating transcripts during oocyte growth (By similarity). Involved in microRNA (miRNA)-induced gene silencing through uridylation of deadenylated miRNA targets (PubMed:25480299). Also functions as an integral regulator of microRNA biogenesis using 3 different uridylation mechanisms (PubMed:25979828). 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 uridylation 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 (PubMed:25979828, PubMed:28671666). Add oligo-U tails to truncated pre-miRNAs with a 5' overhang which may promote rapid degradation of non-functional pre-miRNA species (PubMed:25979828). Does not play a role in replication-dependent histone mRNA degradation (PubMed:18172165). Due to functional redundancy between TUT4 and TUT7, the identification of the specific role of each of these proteins is difficult (PubMed:25979828, PubMed:25480299, PubMed:19703396, PubMed:22898984, PubMed:18172165, PubMed:28671666). 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 (PubMed:30122351).[UniProtKB/Swiss-Prot Function]
<b>Locus ID:</b>	79670
<b>MW:</b>	37.3