

Product datasheet for **RC213555**

EXOSC10 (NM_002685) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	EXOSC10 (NM_002685) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	EXOSC10
Synonyms:	p2; p3; p4; PM-Scl; PM/Scl-100; PMSCL; PMSCL2; RRP6; Rrp6p
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC213555 representing NM_002685
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCGCCACCCAGTACCCGGGAGCCAGGGTCTGTGCGGACCAGCGCAACCAATCCGACGGAGAGA
 TGGTGCTGCCAGGCTTCCCGACGCCGACAGCTTTGTGAAGTTTCTTGGGTCCGTGGTGGCAGTCAC
 CAAGGCATCTGGGGCCTACCACAGTTTGGCGATGAGTATGATTTTTACCGAAGTTTCTGGCTTCCAA
 GCATTTTGCAGAACACAGGGAGACAGGTTGCTTCAGTGCATGAGCAGAGTAATGCAGTACCATGGGTGTC
 GCAGCAACATTAAGGATCGAAGTAAAGTACTGAGCTGGAAGACAAGTTTGATTTACTAGTTGATGCCAA
 TGATGTAATTCTGGAGAGAGTGGGTATTTACTGGATGAAGCCTCAGGTGTAAACAAGAATCAACAGCCT
 GTCCTCCCTGCCGGCTTGCAGGTCACAAAACGGTAGTGTCCAGCTGGAACCGTAAGGCAGCAGAATATG
 GCAAAAAAGCAAATCTGAAACTTCCGGCTGCTTCATGCAAAAAATATCATCCGACCTCAGCTCAAGTT
 TCGAGAGAAGATTGACAATTCACACACACCATTTCTTCTAAAACTTTCATCAAACCCAATGCTCAGAAA
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 CCCCTGCACTGGCTGATTTCCATCCATCAGCAGAGAACCCAGCAGGTTGAGCAAGACATGTTTGCACATCC
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 ATTTCTCAATGAGAGCCTCACAGACCCAGCCATCGTTAAGGTCTTTCATGGTGTGATTGACATAGAAT
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 TTGCCTGGAGGGATAAAACAGCTCGCAGGGAAGATGAAAGTTACGGATATGTAAGTCCAAACCATGAT
 GCTGAAAAATAGCTGAAGAACTGCCTAAGGAACCTCAGGGCATCATAGCTTGTGCAACCCAGTACCGCC
 CTTGTGCGGCAGCAGATCAACGAAATGCACCTTTAATCCAGCAGGCCCGAGAGATGCCCTGCTCAAGT
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ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC213555 representing NM_002685
 Red=Cloning site Green=Tags(s)

MAPPSTREPRVLSATSATKSDGEMVLPGFADSFVKFALGSVVAVTKASGGLPQFGDEYDFYRSFPGFQ
 AFCETQGDRLQCMRSVMQYHGCRSNIKDRSKVTELEDFKDLLVDANDVILERVGILLDEASGVNKNQQP
 VLPAGLQVPKTVVSSWNRKAAEYGKKAKSETFRLLHAKNIIRPQLKFKREKIDNSNTPFLPKIFIKPNAQK
 PLPQALSKERRERPQDRPEDLDVPPALADFIHQRTQQVEQDMFAHPYQYELNHFTPADAVLQKPPQLY
 RPIEETPCHFISSLDLVELNEKLLNCQEFVDLEHHSYRSFGLTCLMQISTRTEDFIIDTLELRSDMY
 ILNESLTPAIVKVFHGADSDIEWLQKDFGLYVVMFDTHQAAARLLNLGRHSLDHLLKLYCNVDSNKQYQ
 LADWRIRPLPEMLSYARDDTHYLLIYDKMRLEMWERNQGPVQLQVWQSRSDICLKKFIKPIFTDES
 YLELYRKQKKHLNTQQLTAFQLLFAWRDKTARREDESYGYVLPNHMLKIAEELPKPEQGIACCNPVPP
 LVRQQINEMHLLIQQAREMPLLKSEVAAGVKKSGPLPSAERLENVFGPHDCSHAPPDGYPIIPTSGSVP
 VQKQASLFPDEKEDNLLGTTCLIAATAVITLFNPSAEDSKKGPLTVAQKKAQNIMESFENPFMRMISNRWK
 LAQVQVQKDSKEAVKKAQAAEQTAAREQAKEACKAAAEQATISVRQQVVLNAAKKRERATSDPRTTEQKQE
 KKRLKISKPKDPEPPEKEFTPYDYSQSDFKAFAGNSKSKVSSQFDPNKQTPSGKKCIAAKKIKQSVGNK
 SMSFPTGKSDRGFRYNWPQR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

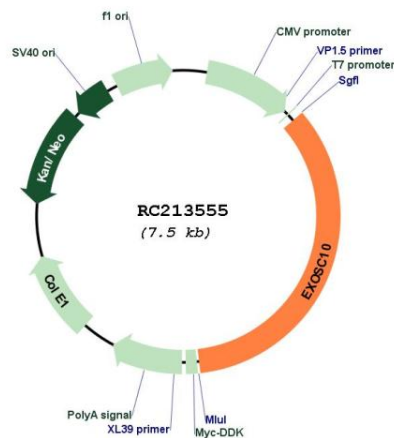
Cloning Scheme:



ACCN:	NM_002685
ORF Size:	2580 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:	<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:	NM_002685.4
RefSeq Size:	2759 bp
RefSeq ORF:	2583 bp
Locus ID:	5394
UniProt ID:	Q01780
Cytogenetics:	1p36.22
Domains:	HRDC, 3_5_exonuclease
Protein Pathways:	RNA degradation
MW:	97.9 kDa

Gene Summary:

Putative catalytic component of the RNA exosome complex which has 3'->5' exoribonuclease activity and participates in a multitude of cellular RNA processing and degradation events. In the nucleus, the RNA exosome complex is involved in proper maturation of stable RNA species such as rRNA, snRNA and snoRNA, in the elimination of RNA processing by-products and non-coding 'pervasive' transcripts, such as antisense RNA species and promoter-upstream transcripts (PROMPTs), and of mRNAs with processing defects, thereby limiting or excluding their export to the cytoplasm. The RNA exosome may be involved in Ig class switch recombination (CSR) and/or Ig variable region somatic hypermutation (SHM) by targeting AICDA deamination activity to transcribed dsDNA substrates. In the cytoplasm, the RNA exosome complex is involved in general mRNA turnover and specifically degrades inherently unstable mRNAs containing AU-rich elements (AREs) within their 3' untranslated regions, and in RNA surveillance pathways, preventing translation of aberrant mRNAs. It seems to be involved in degradation of histone mRNA. EXOSC10 has 3'-5' exonuclease activity (By similarity). EXOSC10 is required for nucleolar localization of C1D and probably mediates the association of MTREX, C1D and MPP6 with the RNA exosome involved in the maturation of 5.8S rRNA.[UniProtKB/Swiss-Prot Function]

Product images:


Circular map for RC213555