

Product datasheet for **RC210055**

EXOSC10 (NM_001001998) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	EXOSC10 (NM_001001998) 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:

>RC210055 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCGCCACCCAGTACCCGGGAGCCAGGGTCTGTGCGGACCAGCGCAACCAATCCGACGGAGAGA
 TGGTGCTGCCAGGCTTCCCGACGCCGACAGCTTTGTGAAGTTTCTCTGGGTCCGTGGTGGCAGTCAC
 CAAGGCATCTGGGGCCTACCACAGTTTGGCGATGAGTATGATTTTTACCGAAGTTTCTGGCTTCCAA
 GCATTTTGCAGAAACACAGGGAGACAGGTTGCTTCAGTGCATGAGCAGAGTAATGCAGTACCATGGGTGTC
 GCAGCAACATTAAGGATCGAAGTAAAGTACTGAGCTGGAAGACAAGTTTGATTTACTAGTTGATGCCAA
 TGATGTAATTCTGGAGAGAGTGGGTATTTACTGGATGAAGCCTCAGGTGTAAACAAGAATCAACAGCCT
 GTCCTCCCTGCCGGCTTGCAGGTCACAAAACGGTAGTGTCCAGCTGGAACCGTAAGGCAGCAGAATATG
 GCAAAAAAGCAAATCTGAAACTTCCGGCTGCTTCATGCAAAAAATATCATCCGACCTCAGCTCAAGTT
 TCGAGAGAAGATTGACAATTCACACACACCATTTCTTCTAAAACTTTCATCAAACCCAATGCTCAGAAA
 CCTCTCCCTCAAGCTCTCTAAGGAAAGCGGGAACGCCACAGGATCGTCCTGAGGACTTGGACGTCC
 CCCCTGCACTGGCTGATTTTCATCCATCAGCAGAGAACCCAGCAGGTTGAGCAAGACATGTTTGCACATCC
 TTATCAATATGAACTAAATCACTTTACCCAGCAGATGCAGTGCCTCAAAAAGCCACAACCCAGTTATAC
 AGACCTATAGAAGAGACACCATGCCATTTTCATATCCTCCCTGGATGAACTCGTGGAACTCAACGAAAAGC
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 ATTTCTCAATGAGAGCCTCACAGACCCAGCCATCGTTAAGGTCTTTCATGGTGTGATTGACAGATAGAAT
 GGCTCAGAAAAGACTTTGGGTTGTATGTAGTAAACATGTTTGATACTCATCAGGCACGCCTTTTAA
 CCTGGGCAGGCACTCACTCGATCATCTCCTGAACTCTACTGCAACGTGGACTCAAACAAGCAATATCAG
 CTGGCTGATTGGAGAATACGCCCTCTGCCCGAGGAGATGCTCAGCTACGCCCGGGATGACACCCATTACC
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 GGTGGTGTGGCAACGGAGCAGGGACATCTGCCTCAAGAAATTCATCAAACCTATCTTACGGATGAGTCC
 TACCTTGAACCTATAGGAAGCAGAAGAAGCACCTTAACACACAGCAGTTGACAGCCTTTCAGCTGCTGT
 TTGCCTGGAGGGATAAAACAGCTCGCAGGGAAGATGAAAGTTACGGATATGTAAGTCCAAACCATGAT
 GCTGAAAATAGCTGAAGAACTGCCTAAGGAACCTCAGGGCATCATAGCTTGTGCAACCCAGTACCGCC
 CTTGTGCGGCAGCAGATCAACGAAATGCACCTTTAATCCAGCAGGCCCGAGAGATGCCCTGCTCAAGT
 CTGAAGTTGCAGCCGGAGTGAAGAAGAGCGGACCCTGCCAGTCTGAGAGATTGGAGAATGTTCTCTT
 TGGACCTCACGACTGCTCCCATGCCCTCCGGATGGCTATCCAATCATCCAACCAAGTGGATCTGTGCCA
 GTTCAGAAGCAGGCGAGCCTCTTCCCTGATGAAAAAGAAGATAACTTGTGGGTACCACATGCCTGATTG
 CCACAGCTGTATCACGTTATTTAATGAACCTAGTGTGAAGACAGTAAAAAGGGTCCATTGACAGTTGC
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 CACCGTGTCCCGTCTCTCAGGCAGCGAAGTTCGATCCATCAACCAAAATCTATGAAATCAGCAACCGTT
 GGAAGCTGGCCAGGTACAAGTACAAAAAGACTCTAAGAAGCTGTCAAGAAGAAGGCAGCTGAGCAAAC
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 GATCCAAATAAACAGACCCCGTCTGGCAAGAAATGCATTGCGACCAAAAAAATTAACAGTCGGTGGGAA
 ACAAAGCATGCTCTTCCAAGTGGAAAGTCAAGCAGAGGCTTCAAGTACAAGTGGCCACAGAGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC210055 protein sequence
 Red=Cloning site Green=Tags(s)

MAPPSTREPRVLSATSATKSDGEMVLPGFDPDADFVKFALGSVVAVTKASGGLPQFGDEYDFYRSFPGFQ
 AFCETQGDRLQLQMSRVMQYHGCRSNIKDRSKVTELEDKFDLLVDANDVILERVGILLDEASGVNKNQPP
 VLPAGLQVPKTVVSSWNRKAAEYGKKAKSETFRLLHAKNIIRPQLKFKREKIDNSNTPFLPKIFIKPNAQK
 PLPQALSKERRERPQDRPEDLDVPPALADFIHQQRTQQVEQDMFAHPYQYELNHFTPADAVLQKQPQLY
 RPIEETPCHFISSLDELVELNEKLLNCQEFADVLEHHSYRSFLGLTCLMQISTRTEDFIIDTLELRSDMY
 ILNESLTDPAIVKVFHGADSDIEWLQKDFGLYVVMFDMTHQAARLLNLGRHSLDHLKLYCNVDSNKQYQ
 LADWRIRPLPEMLSYARDDTHYLLIYDKMRLEMWERNQGPVQLQVWQSRDICKKFIKPIFTDES
 YLELYRKQKHLNTQQLTAFQLLFAWRDKTARREDESYGYVLPNHMKIAEELKPEPQGIACCNPVPP
 LVRQQINEMHLLIQQAREMPLKSEVAAGVKKSGPLPSAERLENVLFGPHDCSHAPPDGYPIIPTSGSVP
 VQKQASLFPDEKEDNLLGTTCLIATAVITLNFPSAEDSKKGPLTVAQKKAQNIMESFENPFMRMFLPSLG
 HRAPVSQAAKFDPSTKIYEISNRWKLAVQVQVQKDSKEAVKKAQAEQTAAREQAKEACKAAAEQAIISVRQQ
 VVLENAAKKRERATSDPRTEQKQEKRLKISKPKDPEPPEKEFTPYDYSQSDFKAFAGNSKSKVSSQF
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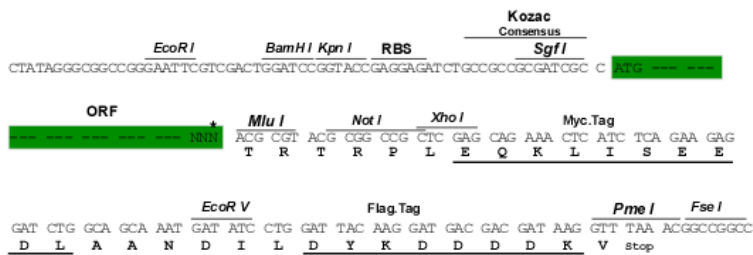
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6156_c09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:

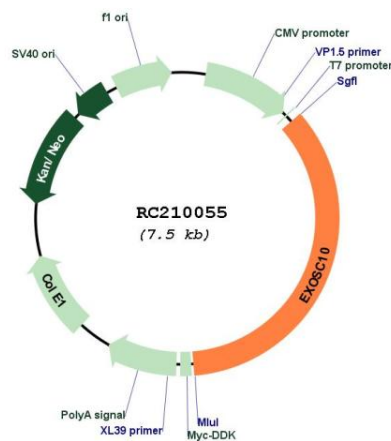


* The last codon before the Stop codon of the ORF

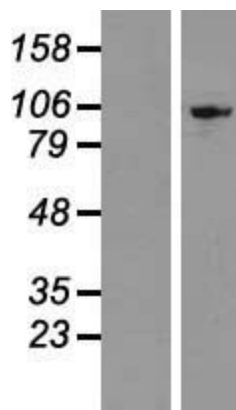
ACCN:	NM_001001998
ORF Size:	2655 bp
OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its 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_001001998.3
RefSeq Size:	2834 bp
RefSeq ORF:	2658 bp
Locus ID:	5394
UniProt ID:	Q01780
Cytogenetics:	1p36.22
Protein Pathways:	RNA degradation
MW:	100.8 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 RC210055



Western blot validation of overexpression lysate (Cat# [LY424312]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC210055 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).