

Product datasheet for **RG237015**

RRP4 (EXOSC2) (NM_001282709) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RRP4 (EXOSC2) (NM_001282709) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	RRP4
Synonyms:	hRrp4p; p7; RRP4; Rrp4p; SHRF
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG237015 representing NM_001282709. Blue=ORF Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGGCGATGGAGATGAGGCTTCCAGTGGCTCGCAAGCCTCTTAGCGAGAGACTGGGCCGCGACACTAAG
AAACATCTAGTGGTGCCGGGGGATACAATCACTACGGACACAGGATTCATGCGGGGCCATGGAACGTAT
ATGGGAGAAGAGAAGCTCATTGCATCTGTTGCTGGCTCTGTGGAGAGAGTAAACAAGTTGATCTGTGTG
AAAGCTTTGAAAACCAGATACATTGGTGAAGTAGGAGACATCGTAGTGGACGAATCACAGAGAGGAGA
AGATCTGCAGAAGATGAGCTTGAATGAGAGGTTTCTTACAGGAAGGGGACCTTATCAGTGCTGAGGTC
CAGGCAGTGTCTCTGACGGAGCTGTCTTTGCACACGAGGAGCCTGAAATATGAAAACTAGGTCAG
GGGTTTTGGTCCAGTTTTCCCTCCCTGGTGAACGGCAGAAGACCCACTTTCATGATTTGCCATGT
GGTGCCTCAGTGATTCTCGGTAACAACGGCTTCATCTGGATTTACCCAACACCTGAGCACAAAGAAGAG
GAAGCAGGGGGCTTCATTGCAAACCTGGAGCCTGTCTCTTTGCTGATCGAGAGGTGATATCCCGCTT
CGGAATGCATCATCTCGCTGGTAACTCAGAGGATGATGCTGATGATACCAGCATCCTGTACTGCTAT
GAAGCATCCCTCCACATCAGATCAAAGACATCTTAAAGCCAGAAATAATGGAGGAGATTGTGATGGAA
ACACGCCAGAGGCTTTTGAACAGGAGGGA
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTAAAC
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Protein Sequence: >Peptide sequence encoded by RG237015
 Blue=ORF Red=Cloning site Green=Tag(s)

MAMEMRLPVARKPLSERLGRDTKKHLVVPGDTITTDGFMFRGHGTYMGEEKLIASVAGSVERVNKLCV
 KALKTRYIGEVDIVVGRITERRRSAEDELAMRGFLQEGDLISAEVQAVFSDGAVSLHTRSLKYKLGQ
 GVLVQVSPSLVKRQKTHFDLPCGASVILGNNGFIWIYPTPEHKEEEAGGFIANLEPVSLADREVI SRL
 RNCIISLVTQRMMLYDTSILYCYEASLPHQIKDILKPEIMEEIVMETRQRLLLEQEG
 TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGGEGTPEQGRMTNKMKSTKGALTFSPYLLSHV
 MGYGFYHFGTYPSGYENPFLHAINNGGYTNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPE
 SVIFTDKIIRSNAIVEHLHPMGDNDLDGSFTRTFSLRDGGYSSVVD SHMHFKSAIHPSILQNGGPMFA
 FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001282709

ORF Size: 789 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).

RefSeq: [NM_001282709.1](#), [NP_001269638.1](#)

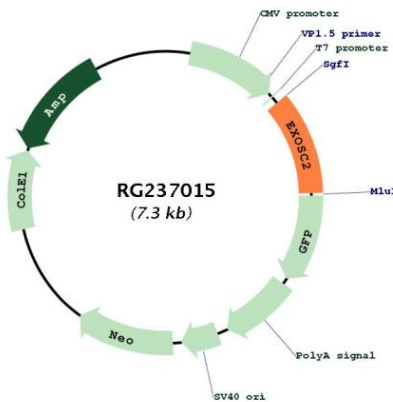
RefSeq Size: 1944 bp

RefSeq ORF: 792 bp

Locus ID: 23404
UniProt ID: [Q13868](#)
Cytogenetics: 9q34.12
Protein Pathways: RNA degradation
MW: 29.9 kDa

Gene Summary: Non-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. The catalytic inactive RNA exosome core complex of 9 subunits (Exo-9) is proposed to play a pivotal role in the binding and presentation of RNA for ribonucleolysis, and to serve as a scaffold for the association with catalytic subunits and accessory proteins or complexes. EXOSC2 as peripheral part of the Exo-9 complex stabilizes the hexameric ring of RNase PH-domain subunits through contacts with EXOSC4 and EXOSC7. [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RG237015