

Product datasheet for **MG201902**

Exosc1 (NM_025644) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Exosc1 (NM_025644) Mouse Tagged ORF Clone
Tag: TurboGFP
Symbol: Exosc1
Synonyms: 2610035C18Rik; 2610104C07Rik; 2610312F07Rik; AI447561
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >MG201902 representing NM_025644
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGCACC**CGGTGAGGTACTGCATCCCCGGCGAACGTCTGTGTA**ACTTGGAGGAAGGCAGCCCCGGCA
 GCGGCACCTACACCCGGCATGGCTACATCTTTTCGTCGCTGGCTGGCTGCCTGATGAAGACCAGCGAGAA
 TGGCGCGTTCCCGTGGTGT**CAGTGATGAGAGAAACAGAGTCCCAGTTGCTTCCAGATGTGGGAGCTGTC**
 GTCACCTGTAAGGTCTCTAGCATCAACTCACGGTTTGCCAAAGTACACATCCTGTATGTGGGATCCACAC
 CACTCAAAAATGCTTTTCGAGGAACTATCCGCAAAGAAGATATCCGAGCAACTGAAAAAGACAAGGTAGA
 AATTTACAAGAGTTTTCGGCCAGGTGACATAGTTTTGGCCAAAGTTATCTCCCTAGGCGATGCACAGTCC
 AATTACCTGCTGACTACTGCTGAAAACGAGCTGGGCGTTGTGGTGGCCCACAGT**GAGT**CAGGTGTT**CAGA**
 TGGTTCCCATCAGCTGGTGTGAGATGCAGTGCCCAAGACCCACACTAAAGAATTCGAAAAGTGGCCCC
 AGTACAGCCCAGTTCCTACAGACC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG201902 representing NM_025644
 Red=Cloning site Green=Tags(s)

MAPPVRYCIPGERLCNLEEGSPGSGTYTRHGYIFSSLAGCLMKTSENGAVPVVSVMRETESQLLPDVGAV
 VTCKVSSINSRFAKVHILYVGSTPLKNAFRGTIRKEDIRATEKDKVEIYKSFPRGDIVLAKVISLGAQVS
 NYLLTTAENELGVVVAHSESGVQMPISWCQMCPKHTKFRKVARVQPEFLQT

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI



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Reconstitution Method:

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_025644.3](#), [NP_079920.1](#)

RefSeq Size: 872 bp

RefSeq ORF: 588 bp

Locus ID: 66583

UniProt ID: [Q9DAA6](#)

Cytogenetics: 19 C3

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. EXOSC1 as peripheral part of the Exo-9 complex stabilizes the hexameric ring of RNase PH-domain subunits through contacts with EXOSC6 and EXOSC8 (By similarity).[UniProtKB/Swiss-Prot Function]