

## Product datasheet for MR203072

### Exosc4 (NM\_175399) Mouse Tagged ORF Clone

#### Product data:

|                           |   |
|---------------------------|---|
| Product Type:             | Expression Plasmids   |
| Product Name:             | Exosc4 (NM_175399) Mouse Tagged ORF Clone                         |
| Tag:                      | Myc-DDK   |
| Symbol:                   | Exosc4  |
| Synonyms:                 | 1110039I09Rik; 1500001N04Rik; Rrp41                               |
| Mammalian Cell Selection: | Neomycin  |
| Vector:                   | pCMV6-Entry (PS100001)  |
| E. coli Selection:        | Kanamycin (25 ug/mL)  |
| ORF Nucleotide Sequence:  | >MR203072 ORF sequence<br>Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCCGGGCTGGAGCTCCTGTCCGATCAGGGTTACCGGATAGACGGTCGCCGCGGGGGAGCTGCGCA  
AGATCCAGGCGCGGATGGGCGTGTGGCGCAGGCCGATGGCTCGGCTTACATCGAGCAGGAAACACCAA  
GGCACTGGCGGTGGTCTACGGGCTCACGAGATCCGGGGCTCCCGGTCTCGAGCCCTGCCGACCGGGCT  
CTAGTGAAGTGTGAGTACAGTTCAGCCACCTTCAGCACAGGTGAGCGCAAGCGAAGGCCTCATGGAGACC  
GGAAGTCTTGTGAGATGGGGCTGCAGCTACGACAGACCTTCGAGGCAGCCATCCTCACACAGCTGCACCC  
CCGCTCTCAGATCGACATCTACGTGCAGGTGCTGCAAGCAGATGGTGGGACCTACGAGCATGTGTGAAT  
GCAGCCACGCTAGCAGTGTGGATGCTGGGATACCTATGCGGGACTTTGTATGCGCATGTTGAGTGGCT  
TTGTGGATGGCACAGCACTAGCGGACCTCAGCCACGTGGAGGAAGCAGCTGGAGGGCCCCAGCTCGCCCT  
GGCCCTGCTGCCCGCCTCCGGCCAGATCGCACTGCTTGTGAGATGGACTCGAGGCTGCACGAAGACCACTTG  
GAGCAGGTGCTAGAGGCTGCTGCCAGGCGGCCGAGGTGTGCACACTCTGCTGGACCTTGTGTCGTCGAC  
AGCACGTGCAGGAGGCCTCTGTCTCACTGGGGGAC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >MR203072 protein sequence  
Red=Cloning site Green=Tags(s)

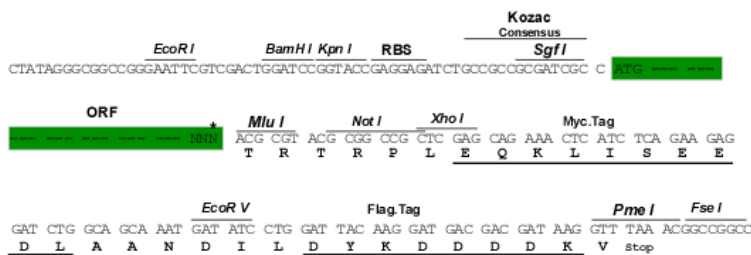
MAGLELLSDQGYRIDGRRAGELRKIQARMGVFAQADGSAYIEQGNTKALAVVYGPHEIRGSRSRALPDRA  
 LVNCQYSSATFSTGERKRRPHGDRKSCEMGLQLRQTFEAAILTQLHPRSQIDIYVQVLQADGGTYAACVN  
 AATLAVMDAGIPMRDFVCACSAGFVDGTALADLSHVVEEAAGGPQLALALLPASGQIALLEMD SRLHEDHL  
 EQVLEAAAQAARGVHTLLDLVVRQHVQEASVSLGD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_175399

**ORF Size:** 738 bp

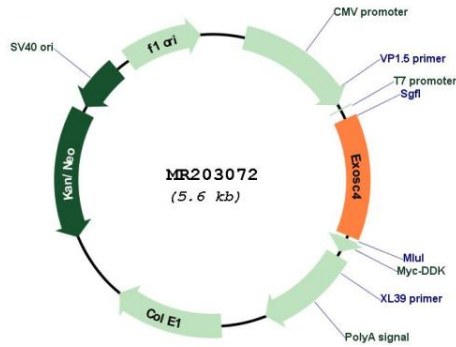
**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone 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).

|                               |   |
|-------------------------------|---|
| <b>Reconstitution Method:</b> | <ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>   |
| <b>RefSeq:</b>                | <a href="#">NM_175399.1</a> , <a href="#">NM_175399.2</a> , <a href="#">NM_175399.3</a> , <a href="#">NM_175399.4</a> , <a href="#">NP_780608.1</a>   |
| <b>RefSeq Size:</b>           | 1789 bp   |
| <b>RefSeq ORF:</b>            | 738 bp  |
| <b>Locus ID:</b>              | 109075  |
| <b>UniProt ID:</b>            | <a href="#">Q92119</a>  |
| <b>Cytogenetics:</b>          | 15 D3   |
| <b>MW:</b>                    | 26.2 kDa  |
| <b>Gene Summary:</b>          | <p>Non-catalytic component of the RNA exosome complex which has 3'-&gt;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. EXOSC4 binds to ARE-containing RNAs (By similarity). [UniProtKB/Swiss-Prot Function]</p> |

Product images:



Circular map for MR203072