

## Product datasheet for **RN205003**

### Rnaseh1 (NM\_001013097) Rat Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Rnaseh1 (NM\_001013097) Rat Untagged Clone  
**Tag:** Tag Free  
**Symbol:** Rnaseh1  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**Fully Sequenced ORF:** >RN205003 representing NM\_001013097  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGCGCTGGCTGCTGCCGCTGTTTCGCACTGTGACTGGCCGTAGTGCGCGTCAGGCGAGGTGTTTGCG  
 GGCTCGGCATGTTCTATGCGGTGAGGAGAGGCCGACAGGACCGGGTCTTCCTGAGTTGGAGTGAGTGCAA  
 AGCACAGGTGGACCGGTTCCCTGCTGCCAGGTTAAGAAATTTGCCACAGAAGATGAGGCCCTGGCCTTT  
 GTCAGGAGCTCTCCAGTCCGGACGGTTCAAAGGGCAGGAGAGTGCGCATGTGCAAAAGTTACAGGTGA  
 AGACCAGCAAGCGGCCTCGGGAGCCTCTGGGTGAAGAGGAGGAACCTCCAGAGCCAGGGGCAAAGCACAC  
 AAGACAGGACACGGAGCCAGCTGCTCTAGTGAGCAAGGATGCATTTTCTTATATGGGAGAGTCAGTCGTT  
 GTCTACACGGATGGCTGTTGCTCCAGTAATGGCGGAAGCGGGCACGAGCAGGAATCGGCGTTTACTGGG  
 GGCCAGGCCACCCCTTAATGTAGGCATAAGGCTTCTGGGCGACAGACAAACCAGAGGGCTGAGATCCA  
 TGCAGCCTGTAAGCCATCAGCAAGCCAAGGCTCAGAACATCAGCAAGCTGGTCTGTACACAGACAGC  
 ATGTTACCATCAACGGGATAACTAAGGTTTCAGGGCTGGAAGAAGAATGGCTGGAGAACCAGTACAG  
 GAAAGACGTGATCAACAAGGAGGACTTCATGGAGCTGGATGAGCTCACCCAGGGCATGGACATCCAGTG  
 GATGCACATTCTGGCCACTCAGGATTTGTGGCAACGAAGAAGCTGACAGACTGCAAGGGAAGGAGCG  
 AAGCAATCTGAGGGCTGA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** Sgfl-MluI  
**ACCN:** NM\_001013097  
**Insert Size:** 858 bp



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<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>Components:</b>	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>	<u><a href="#">NM_001013097.2</a></u> , <u><a href="#">NP_001013115.1</a></u>
<b>RefSeq Size:</b>	1400 bp
<b>RefSeq ORF:</b>	858 bp
<b>Locus ID:</b>	298933
<b>UniProt ID:</b>	<u><a href="#">Q5BK46</a></u>
<b>Cytogenetics:</b>	6q16
<b>Gene Summary:</b>	<p>This gene encodes an endonuclease that specifically degrades the RNA of RNA-DNA hybrids and is necessary for DNA replication and repair. This enzyme is present in both mitochondria and nuclei, which are resulted from translation of a single mRNA with two in-frame initiation start codons. The use of the first start codon produces the mitochondrial isoform and the use of the second start codon produces the nuclear isoform. The production of the mitochondrial isoform is modulated by an upstream open reading frame (uORF) which encodes 7aa in rat. [provided by RefSeq, Nov 2013]</p> <p>Transcript Variant: This variant (1) encodes two isoforms due to the use of alternative translation initiation codons. The longer isoform (1) is derived from the upstream AUG start codon, while the shorter isoform (2) is derived from the downstream AUG start codon. This RefSeq represents the longer isoform (1), which is a mitochondrial protein (see details in PMID: 20823270).</p>