

## **Product datasheet for MC226630**

## Rnaseh1 (NM 001286865) Mouse Untagged Clone

**Product data:** 

**Product Type:** Expression Plasmids

Product Name: Rnaseh1 (NM\_001286865) Mouse Untagged Clone

Tag: Tag Free
Symbol: Rnaseh1

Vector: pCMV6-Entry (PS100001)

E. coli Selection: Kanamycin (25 ug/mL)

Cell Selection: Neomycin

Fully Sequenced ORF: >MC226630 representing NM\_001286865

Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC

GCCGCGATCGCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT

ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** Sgfl-Mlul

**ACCN:** NM\_001286865

**Insert Size:** 780 bp



**OriGene Technologies, Inc.** 9620 Medical Center Drive, Ste 200

CN: techsupport@origene.cn

Rockville, MD 20850, US Phone: +1-888-267-4436 https://www.origene.com techsupport@origene.com EU: info-de@origene.com

## Rnaseh1 (NM\_001286865) Mouse Untagged Clone - MC226630

**OTI Disclaimer:** 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).

**OTI Annotation:** Clone contains native stop codon, and expresses the complete ORF without any c-terminal

tag.

**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:** 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: <u>NM 001286865.1</u>, <u>NP 001273794.1</u>

RefSeq Size: 1472 bp
RefSeq ORF: 780 bp
Locus ID: 19819
Cytogenetics: 12 A2

**Gene Summary:** 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 mouse. An alternately spliced transcript variant has been found which is a candidate for

nonsense-mediated mRNA decay (NMD). [provided by RefSeq, Nov 2013]

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 shorter isoform (2), which is a nuclear protein (see details in PMID:

20823270).