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Product datasheet for RN216176

Rnaseh1 (NM_001286938) Rat Untagged Clone

Product data:

Product Type: Expression Plasmids

Product Name: Rnaseh1 (NM_001286938) 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:

>RN216176 representing NM_001286938
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTTCTATGCGGTGAGGAGAGGCCGCAGGACCGGGGTCTTCCTGAGTTGGAGTGAGTGCAAAGCACAGG
TGGACCGGTTCCCTGCTGCCAGGTTTAAGAAATTTGCCACAGAAGATGAGGCCTGGGCCTTTGTCAGGAG
CTCTTCCAGTCCGGACGGTTCAAAAGGGCAGGAGAGTGCGCATGTGCAAAAGTTACAGGTGAAGACCAGC
AAGCGGCCTCGGGAGCCTCTGGGTGAAGAGGAGGAACCTCCAGAGCCAGGGGCAAAGCACACAAGACAGG
ACACGGAGCCAGCTGCTCTAGTGAGCAAGGATGCATTTTCTTATATGGGAGAGTCAGTCGTTGTCTACAC
GGATGGCTGTTGCTCCAGTAATGGGCGGAAGCGGGCACGAGCAGGAATCGGCGTTTACTGGGGGCCAGGC
CACCCCTTAAATGTAGGCATAAGGCTTCCTGGGCGACAGACAAACCAGAGGGCTGAGATCCATGCAGCCT
GTAAAGCCATCACGCAAGCCAAGGCTCAGAACATCAGCAAGCTGGTCCTGTACACAGACAGCATGTTCAC
CATCAACGGGATAACTAACTGGGTTCAGGGCTGGAAGAAGAATGGCTGGAGAACGAGTACAGGGAAAGAC
GTGATCAACAAGGAGGACTTCATGGAGCTGGATGAGCTCACCCAGGGCATGGACATCCAGTGGATGCACA
TTCCTGGCCACTCAGGATTTGTGGGCAACGAAGAAGCTGACAGACTGGCAAGGGAAGGAGCGAAGCAATC
TGAGGGCTGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI

ACCN: NM_001286938

Insert Size: 780 bp

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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:	NM_001286938.1, NP_001273867.1
RefSeq Size:	1400 bp
RefSeq ORF:	780 bp
Locus ID:	298933
UniProt ID:	Q5BK46
Cytogenetics:	6q16
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 rat. [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).