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Product datasheet for RC200595

RNase H1 (RNASEH1) (NM_002936) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RNase H1 (RNASEH1) (NM_002936) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	RNase H1
Synonyms:	H1RNA; PEOB2; RNH1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC200595 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGAGCTGGCTTCTGTTCCTGGCCCACAGAGTCGCCTTGGCCGCCTTGCCCTGCCGCCGCGGCTCTCGCG
GGTTCGGGATGTTCTATGCCGTGAGGAGGGGCCGCAAGACCGGGGTCTTTCTGACCTGGAATGAGTGCAG
AGCACAGGTGGACCGGTTTCCTGCTGCCAGATTTAAGAAGTTTGCCACAGAGGATGAGGCCTGGGCCTTT
GTCAGGAAATCTGCAAGCCCGGAAGTTTCAGAAGGGCATGAAAATCAACATGGACAAGAATCGGAGGCGA
AAGCCAGCAAGCGACTCCGTGAGCCACTGGATGGAGATGGACATGAAAGCGCAGAGCCGTATGCAAAGCA
CATGAAGCCGAGCGTGGAGCCGGCGCCTCCAGTTAGCAGAGACACGTTTTCCTACATGGGAGACTTCGTC
GTCGTCTACACTGATGGCTGCTGCTCCAGTAATGGGCGTAGAAGGCCGCGAGCAGGAATCGGCGTTTACT
GGGGGCCAGGCCATCCTTTAAATGTAGGCATTAGACTTCCTGGGCGGCAGACAAACCAAAGAGCGGAAAT
TCATGCAGCCTGCAAAGCCATTGAACAAGCAAAGACTCAAAACATCAATAAACTGGTTCTGTATACAGAC
AGTATGTTTACGATAAATGGTATAACTAACTGGGTTCAAGGTTGGAAGAAAAATGGGTGGAAGACAAGTG
CAGGGAAAGAGGTGATCAACAAAGAGGACTTTGTGGCACTGGAGAGGCTTACCCAGGGGATGGACATTCA
GTGGATGCATGTTCCTGGTCATTCGGGATTTATAGGCAATGAAGAAGCTGACAGATTAGCCAGAGAAGGA
GCTAAACAATCGGAAGAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC200595 protein sequence
Red=Cloning site Green=Tags(s)

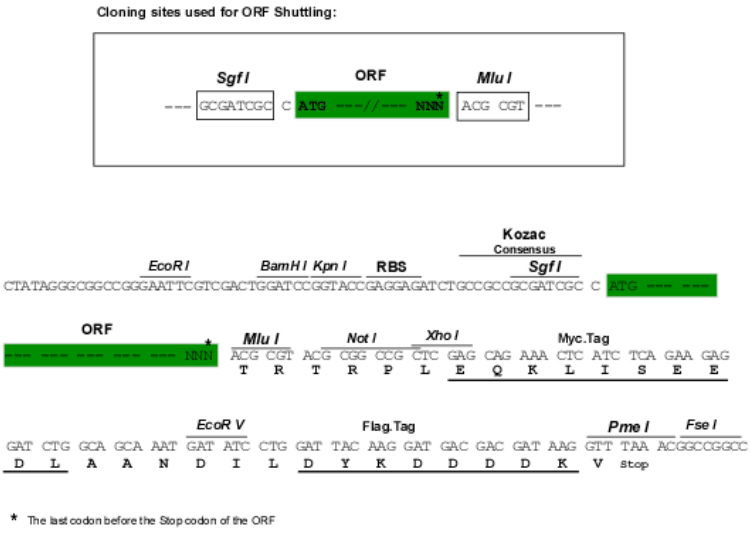
MSWLLFLAHRVALAALPCRRGSRGFGMFYAVRRGRKTGVFLTWNECRAQVDRFPAARFKKFATEDEAWAF
VRKSASPEVSEGHENQHGQESEAKASKRLREPLDGDGHESAEPYAKHMKPSVEPAPPVSRDTFSYMGDFV
VVYTDGCCSSNGRRRPRAGIGVYWGPGHPLNVGIRLPGRQTNQRAEIHAACKAIEQAKTQNINKLVLYTD
SMFTINGITNWVQGWKKNGWKTSAGKEVINKEDFVALERLTQGMDIQWMHVPGHSGFIGNEEADRLAREG
AKQSED

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6082_c10.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_002936

ORF Size: 858 bp

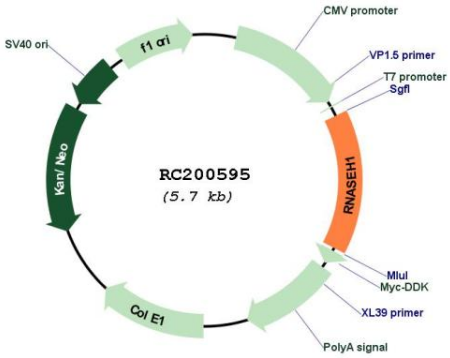
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially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

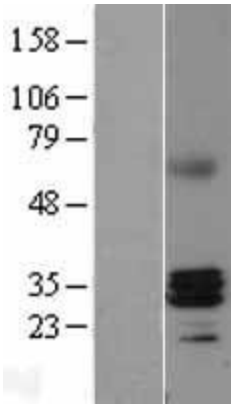
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_002936.6
RefSeq Size:	1865 bp
RefSeq ORF:	861 bp
Locus ID:	246243
UniProt ID:	O60930
Cytogenetics:	2p25.3
Domains:	rnaseH
Protein Pathways:	DNA replication
MW:	32.1 kDa
Gene Summary:	This gene encodes an endonuclease that specifically degrades the RNA of RNA-DNA hybrids and plays a key role in DNA replication and repair. Alternate in-frame start codon initiation results in the production of alternate isoforms that are directed to the mitochondria or to the nucleus. The production of the mitochondrial isoform is modulated by an upstream open reading frame (uORF). Mutations in this gene have been found in individuals with progressive external ophthalmoplegia with mitochondrial DNA deletions, autosomal recessive 2. Alternative splicing results in additional coding and non-coding transcript variants. Pseudogenes of this gene have been defined on chromosomes 2 and 17. [provided by RefSeq, Jul 2017]

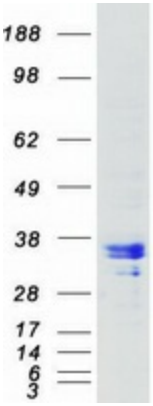
Product images:



Circular map for RC200595



Western blot validation of overexpression lysate (Cat# [LY401027]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200595 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified RNASEH1 protein (Cat# [TP300595]). The protein was produced from HEK293T cells transfected with RNASEH1 cDNA clone (Cat# RC200595) using MegaTran 2.0 (Cat# [TT210002]).