

## Product datasheet for **RC219235**

### Ribonuclease Inhibitor (RNH1) (NM\_203389) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Ribonuclease Inhibitor (RNH1) (NM_203389) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Ribonuclease Inhibitor
Synonyms:	RAI; RNH
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC219235 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGAGCCTGGACATCCAGAGCCTGGACATCCAGTGTGAGGAGCTGAGCGACGCTAGATGGGCCGAGCTCC  
 TCCTCTGCTCCAGCAGTGCCAAGTGGTCAGGCTGGACGACTGTGGCCTCACGGAAGCACGGTGCAAGGA  
 CATCAGCTCTGCACTTCGAGTCAACCCTGCACTGGCAGAGCTCAACCTGCGCAGCAACGAGCTGGCGAT  
 GTCGGCGTGCATTGCGTCTCCAGGGCCTGCAGACCCCTCCTGCAAGATCCAGAAGCTGAGCCTCCAGA  
 ACTGCTGCTGACGGGGCCGGCTGCGGGTCTGTCCAGCACACTACGCACCCTGCCACCCTGCAGGA  
 GCTGCACCTCAGCGACAACCTCTGGGGGATGCGGGCCTGCAGCTGCTCTGCGAAGGACTCTGGACCC  
 CAGTGCCGCTGGAAAAGCTGCAGCTGGAGTATTGCAGCCTCTCGGCTGCCAGCTGCGAGCCCTGGCCT  
 CCGTGCTCAGGGCAAGCCGACTTCAAGGAGCTCACGGTTAGCAACAACGACATCAATGAGGCTGGCGT  
 CCATGTGCTATGCCAGGGCCTGAAGGACTCCCCCTGCCAGCTGGAGGCGCTCAAGCTGGAGAGCTGCGGT  
 GTGACATCAGACAACCTGCCGGGACTGTGCGGCATTGTGGCCTCCAAGGCTCGCTGCGGGAGCTGGCC  
 TGGGCAGCAACAAGCTGGGTGATGTGGCATGGCGGAGCTGTGCCAGGGCTGCTCCACCCAGCTCCAG  
 GCTCAGGACCCTGTGGATCTGGGAGTGTGGCATCACTGCCAAGGGCTGCGGGGATCTGTGCCGTGTCTC  
 AGGGCCAAGGAGAGCCTGAAGGAGCTCAGCCTGGCCGGCAACGAGCTGGGGGATGAGGGTGCCCGACTGC  
 TGTGTGAGACCCTGTGGAACCTGGTCCAGCTGGAGTCGCTGTGGGTGAAGTCTGCAGCTTACAGC  
 CGCCTGCTGCTCCCACTCAGCTCAGTGTGGCCAGAACAGGTTTCTCCTGGAGCTACAGATAAGCAAC  
 AACAGGCTGGAGGATGCGGGCGTGGGGAGCTGTGCCAGGGCCTGGCCAGCCTGGCTCTGTGCTGCGGG  
 TGCTCTGGTTGGCCGACTGCGATGTGAGTGACAGCAGCTGCAGCAGCCTCGCCGCAACCCCTGTTGGCCAA  
 CCACAGCCTGCGTGAGCTGGACCTCAGCAACAACCTGCCTGGGGGACGCGGGCATCCTGCAGCTGGTGGAG  
 AGCGTCCGGCAGCCGGGCTGCCTCCTGGAGCAGCTGGTCTGTACGACATTTACTGGTCTGAGGAGATGG  
 AGGACCGCTGCAGGCCCTGGAGAAGGACAAGCCATCCCTGAGGGTCATCTCC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC219235 protein sequence  
 Red=Cloning site Green=Tags(s)

MSLDIQSLDIQCEELSDARWAELLPLLQCCQVVRLLDDCGLTEARCKDISSALRVNPALAEINLRSNELGD  
 VGVHCVLQGLQTPSCKIQKLSLQNCCLTGAGCGVLSSTLRTLPTLQELHLSNLLGDAGLQLLCEGLLDP  
 QCRLEKLQLEYCSLSAASCEPLASVLRAPDFKELTVSNNDINEAGVHVLQGLKDSPCQLEALKLESCG  
 VTSNDCRDLCGIVASKASLRELALGSNKLGDVGMALCPGLLHPSRRLRTLWIWECGITAKGCDLCRVL  
 RAKESLKEKSLAGNELGDEGARLLCETLLEPGCQLES LWKSCSFTAACCSHFSSVLAQNRFLLELQISN  
 NRLEDAGVRELQGLGQPGSVLRVWLADCDVSDSSCSLAATLLANHSLRELDLNNCLGDAGILQLVE  
 SVRQPGCLLEQLVLYDIYWSEEMEDRLQALEKDKPSLRVIS

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

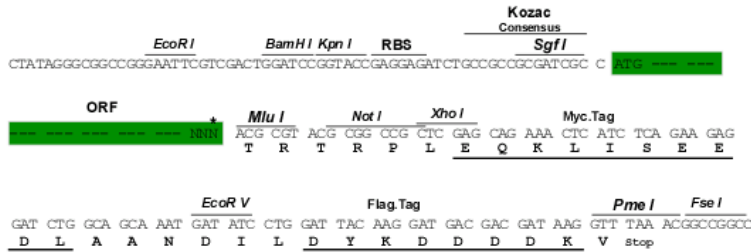
[https://cdn.origene.com/chromatograms/mk6583\\_e05.zip](https://cdn.origene.com/chromatograms/mk6583_e05.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**

Cloning sites used for ORF Shutting:



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

**ACCN:** NM\_203389

**ORF Size:** 1383 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.

**RefSeq:** [NM\\_203389.3](#)
**RefSeq Size:** 1842 bp

**RefSeq ORF:** 1386 bp

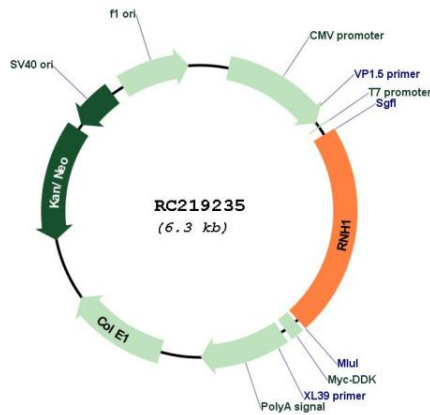
**Locus ID:** 6050

**UniProt ID:** [P13489](#)
**Cytogenetics:** 11p15.5

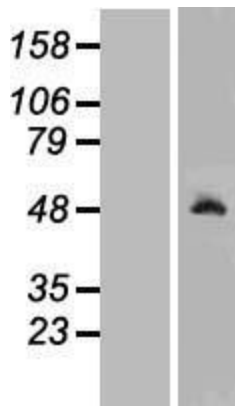
**MW:** 50 kDa

**Gene Summary:** Placental ribonuclease inhibitor (PRI) is a member of a family of proteinaceous cytoplasmic RNase inhibitors that occur in many tissues and bind to both intracellular and extracellular RNases (summarized by Lee et al., 1988 [PubMed 3219362]). In addition to control of intracellular RNases, the inhibitor may have a role in the regulation of angiogenin (MIM 105850). Ribonuclease inhibitor, of 50,000 Da, binds to ribonucleases and holds them in a latent form. Since neutral and alkaline ribonucleases probably play a critical role in the turnover of RNA in eukaryotic cells, RNH may be essential for control of mRNA turnover; the interaction of eukaryotic cells with ribonuclease may be reversible in vivo.[supplied by OMIM, Jul 2010]

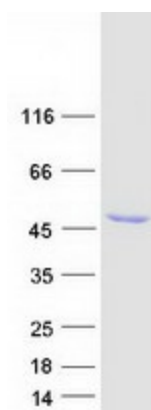
**Product images:**



Circular map for RC219235



Western blot validation of overexpression lysate (Cat# [LY404330]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC219235 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified RNH1 protein (Cat# [TP319235]). The protein was produced from HEK293T cells transfected with RNH1 cDNA clone (Cat# RC219235) using MegaTran 2.0 (Cat# [TT210002]).