

Product datasheet for **RC203946**

Ribonuclease Inhibitor (RNH1) (NM_203388) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ribonuclease Inhibitor (RNH1) (NM_203388) 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:

>RC203946 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAGCCTGGACATCCAGAGCCTGGACATCCAGTGTGAGGAGCTGAGCGACGCTAGATGGGCCGAGCTCC
 TCCTCTGCTCCAGCAGTGCCAAGTGGTCAGGCTGGACGACTGTGGCCTCACGGAAGCACGGTGCAAGGA
 CATCAGCTCTGCACTTCGAGTCAACCTGCACTGGCAGAGCTCAACCTGCGCAGCAACGAGCTGGGCGAT
 GTCGGCGTGCATTGCGTCTCCAGGGCCTGCAGACCCCTCCTGCAAGATCCAGAAGCTGAGCCTCCAGA
 ACTGCTGCTGACGGGGCCGGCTGCGGGTCTGTCCAGCACACTACGCACCCTGCCACCCTGCAGGA
 GCTGCACCTCAGCGACAACCTCTGGGGGATGCGGGCCTGCAGCTGCTCTGCGAAGGACTCTGGACCC
 CAGTGGCCCTGGAAAAGCTGCAGCTGGAGTATTGCAGCCTCTCGGCTGCCAGCTGCGAGCCCTGGCCT
 CCGTGCTCAGGGCAAGCCGACTTCAAGGAGCTCACGGTTAGCAACAACGACATCAATGAGGCTGGCGT
 CCGTGTGCTGTGCCAGGGCCTGAAGGACTCCCCCTGCCAGCTGGAGGCGCTCAAGCTGGAGAGCTGCGGT
 GTGACATCAGACAACCTGCCGGGACTGTGCGGCATTGTGGCCTCCAAGGCCTCGCTGCGGGAGCTGGCC
 TGGGCAGCAACAAGCTGGGTGATGTGGGCATGGCGGAGCTGTGCCAGGGCTGCTCCACCCAGCTCCAG
 GCTCAGGACCCTGTGGATCTGGGAGTGTGGCATCACTGCCAAGGGCTGCGGGGATCTGTGCCGTGTCTC
 AGGGCCAAGGAGAGCCTGAAGGAGCTCAGCCTGGCCGGCAACGAGCTGGGGGATGAGGGTGCCCGACTGC
 TGTGTGAGACCCTGTGGAACCTGGCTGCCAGCTGGAGTCGCTGTGGGTGAAGTCTGCAGCTTACAGC
 CGCCTGCTGCTCCCACTCAGCTCAGTGTGGCCAGAACAGGTTTCTCCTGGAGCTACAGATAAGCAAC
 AACAGGCTGGAGGATGCGGGCGTGGGGAGCTGTGCCAGGGCCTGGCCAGCCTGGCTCTGTGCTGCGGG
 TGCTCTGGTTGGCCGACTGCGATGTGAGTGACAGCAGCTGCAGCAGCCTCGCCGCAACCTGTTGGCCAA
 CCACAGCCTGCGTGAGCTGGACCTCAGCAACAACCTGCCTGGGGGACCGCGCATCCTGCAGCTGGTGGAG
 AGCGTCCGGCAGCCGGGCTGCCTCCTGGAGCAGCTGGTCTGTACGACATTTACTGGTCTGAGGAGATGG
 AGGACCGCTGCAGGCCCTGGAGAAGGACAAGCCATCCCTGAGGGTCATCTCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC203946 protein sequence
 Red=Cloning site Green=Tags(s)

MSLDIQSLDIQCEELSDARWAELLPLLQCCQVVRLLDDCGLTEARCKDISSALRVNPALAEINLRSNELGD
 VGVHCVLQGLQTPSCKIQKLSLQNCCLTGAGCGVLSSTLRTLPTLQELHLSNLLGDAGLQLLCEGLLDP
 QCRLEKQLLEYCSLSAASCEPLASVLRAPDFKELTVSNNDINEAGVRVLCQGLKDSPCQLEALKLESCG
 VTSNDCRDLGIVASKASLRELALGSNKLGDVGMALCPGLLHPSRRLRTLWIWECGITAKGCDLCRVL
 RAKESLKEKSLAGNELGDEGARLLCETLLEPGCQLES LWKSCSFTAACCSHFSSVLAQNRFLLELQISN
 NRLEDAGVRELQGLGQPGSVLRVWLADCDVSDSSCSLAATLLANHSLRELDLNNCLGDAGILQLVE
 SVRQPGCLLEQLVLYDIYWSEEMEDRLQALEKDKPSLRVIS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6323_d02.zip

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_203388

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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_203388.3](#)

RefSeq Size: 1774 bp

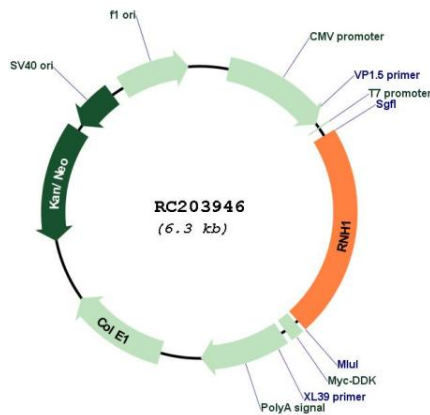
RefSeq ORF: 1386 bp

Locus ID: 6050

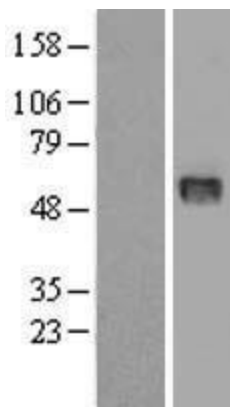
UniProt ID: [P13489](#)
 Cytogenetics: 11p15.5
 MW: 50 kDa

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]

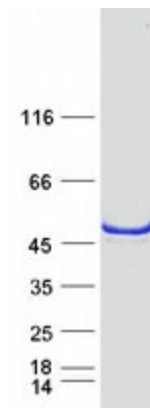
Product images:



Circular map for RC203946



Western blot validation of overexpression lysate (Cat# [LY404329]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203946 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified RNH1 protein (Cat# [TP303946]). The protein was produced from HEK293T cells transfected with RNH1 cDNA clone (Cat# RC203946) using MegaTran 2.0 (Cat# [TT210002]).