

## Product datasheet for **RG204032**

### Ribonuclease H2, subunit A (RNASEH2A) (NM\_006397) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Ribonuclease H2, subunit A (RNASEH2A) (NM_006397) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Ribonuclease H2, subunit A
Synonyms:	AGS4; JUNB; RNASEHI; RNHIA; RNHL; THSD8
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG204032 representing NM_006397 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGATCTCAGCGAGCTGGAGAGAGACAATACAGGCCGCTGTCGCCTGAGTTCGCCTGTGCCCGCGGTGT  
GCCGCAAGGAGCCTTGCCTCTGGGCGTCGATGAGGCGGGCAGGGGCCCGTCTGGGCCCATGGTCTA  
CGCCATCTGTTATTGTCCCCTGCCTCGCCTGGCAGATCTGGAGGCGCTGAAAGTGGCAGACTCAAAGACC  
CTATTGGAGAGCGAGCGGAAAGGCTGTTTGC AAAATGGAGGACACGGACTTTGTGGCTGGGCGCTGG  
ATGTGCTGTCTCAAACCTCATCTCTACCAGCATGCTTGGGCGGGTCAAATACAACCTGAACTCCCTGTC  
ACATGATACAGCCACTGGGCTTATACAGTATGCATTGGACCAGGGCGTGAACGTCACCCAGGTATTCGTG  
GACACCGTAGGGATGCCAGAGACATACCAGGCGCGGCTGCAGCAAAGTTTTCCCGGGATTGAGGTGACGG  
TCAAGGCCAAAGCAGATGCCCTCTACCCGGTGGTTAGTGCTGCCAGCATCTGTGCCAAGGTGGCCCGGGA  
CCAGGCCGTGAAGAAATGGCAGTTCGTGGAGAACTGCAGGACTTGGATACTGATTATGGCTCAGGCTAC  
CCCAATGATCCCAAGACAAAAGCGTGGTTGAAGGAGCACGTGGAGCCTGTGTTCCGGCTTCCCCAGTTTG  
TCCGGTTCAGCTGGCGCACGGCCAGACCATCCTGGAGAAAGAGGCGGAAGATGTTATATGGGAGGACTC  
AGCATCCGAGAATCAGGAGGGACTCAGGAAGATCACATCTACTTCTCAATGAAGGTTCCCAAGCCCGT  
CCCCGTTCTTCCACCGATATTTCTGGAACGCGGCTGGAGTCAGCAACCAGCCTC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG204032 representing NM\_006397  
 Red=Cloning site Green=Tags(s)

MDLSELERDNTGRCRLSSPVPVAVCRKEPCVLGVDEAGRGPVLPMPVYAIICYPLPRLADLEALKVADSKT  
 LLESERERLFAKMEDTDFVGWALDVLSPNLISTSMGRVKYNLSLSDTATGLIQYALDQGVNVTQVFV  
 DTVGMPETYQARLQQSFPGIEVTVKAKADALYPVYSAASICAKVARDQAVKKWQFVEKLQDLDDTYGSGY  
 PNDPKTKAWLKEHVPEVFGFPQFVRF SWRTAQTILEKEAEDVIWEDSASENQEGLRKITSYFLNEGSQAR  
 PRSSHRYFLERGLSATSL

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_006397

**ORF Size:** 897 bp

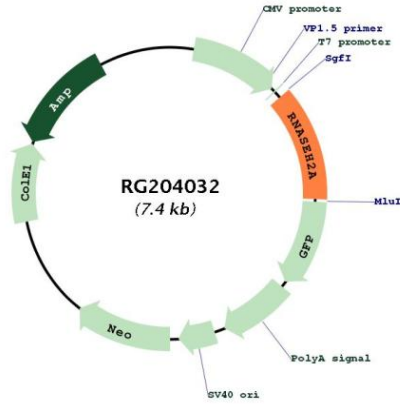
**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in *E. coli* are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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.

<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_006397.3</a>
<b>RefSeq Size:</b>	1148 bp
<b>RefSeq ORF:</b>	900 bp
<b>Locus ID:</b>	10535
<b>UniProt ID:</b>	<a href="#">O75792</a>
<b>Cytogenetics:</b>	19p13.13
<b>Domains:</b>	RNase_HII
<b>Protein Pathways:</b>	DNA replication
<b>Gene Summary:</b>	The protein encoded by this gene is a component of the heterotrimeric type II ribonuclease H enzyme (RNaseH2). RNaseH2 is the major source of ribonuclease H activity in mammalian cells and endonucleolytically cleaves ribonucleotides. It is predicted to remove Okazaki fragment RNA primers during lagging strand DNA synthesis and to excise single ribonucleotides from DNA-DNA duplexes. Mutations in this gene cause Aicardi-Goutieres Syndrome (AGS), a an autosomal recessive neurological disorder characterized by progressive microcephaly and psychomotor retardation, intracranial calcifications, elevated levels of interferon-alpha and white blood cells in the cerebrospinal fluid.[provided by RefSeq, Aug 2009]

Product images:



Circular map for RG204032