

## Product datasheet for **SC116088**

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

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Ribonuclease H2, subunit A (RNASEH2A) (NM_006397) Human Untagged Clone
Tag:	Tag Free
Symbol:	Ribonuclease H2, subunit A
Synonyms:	AGS4; JUNB; RNASEHI; RNHIA; RNHL; THSD8
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC116088 sequence for NM_006397 edited (data generated by NextGen Sequencing)

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ATGGATCTCAGCGAGCTGGAGAGACAATACAGGCCGCTGTCGCCTGAGTTCGCCTGTG
CCCGCGGTGTGCCAAGGAGCCTTGCGTCCTGGGCGTCGATGAGCGGGCAGGGCCCC
GTGCTGGGCCCATGGTCTACGCCATCTGTTATTGTCCCCTGCCTCGCCTGGCAGATCTG
GAGGCGTGAAAGTGGCAGACTCAAAGACCCTATTGGAGAGCGAGCGGAAAGGCTGTTT
GCGAAAATGGAGGACACGGACTTTGTCGGCTGGGCGCTGGATGTGCTGTCTCAAACCTC
ATCTCTACCAGCATGCTTGGGCGGGTCAAATACAACCTGAACTCCCTGTCACATGATACA
GCCACTGGGCTTATACAGTATGCATTGGACCAGGGCGTGAACGTCACCCAGGTATTCGTG
GACACCGTAGGGATGCCAGAGACATACCAGGCGGGCTGCAGCAAAGTTTTCCCGGGATT
GAGGTGACGGTCAAGGCCAAAGCAGATGCCCTCTACCCGGTGGTTAGTGCTGCCAGCATC
TGTGCCAAGGTGGCCCGGACCAGGCCGTGAAGAAATGGCAGTTCGTGGAGAAACTGCAG
GACTTGGATACTGATTATGGCTCAGGCTACCCCAATGATCCCAAGACAAAAGCGTGGTTG
AAGGAGCAGCTGGAGCCTGTGTTCCGGCTTCCCCAGTTTGTCCGGTTCAGCTGGCGCACG
GCCCAGACCATCCTGGAGAAAGAGGCGGAAGATGTTATATGGGAGGACTCAGCATCCGAG
AATCAGGAGGGACTCAGGAAGATCACATCCTACTTCTCAATGAAGGGTCCCAAGCCCGT
CCCCGTTCTTCCACCGATATTTCTGGAACGCGGCTGGAGTCAGCAACCAGCCTCTAG

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Clone variation with respect to NM\_006397.2



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**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_006397 unedited  
 AATACGACTCACTATAGGGCGGCCGGAATTCGGCACGAGGGCGGCTGAGGCGGCATGGA  
 TCTCAGCGAGCTGGAGAGAGACAATACAGGCCGCTGTCGCCTGAGTTCGCCTGTGCCCGC  
 GGTGTGCCGCAAGGAGCCTTGCCTCGGCGTCGATGAGGCGGGCAGGGGCCCCGTGCT  
 GGGCCCCATGGTCTACGCCATCTGTTATTGTCCCCTGCCTGCCTGGCAGATCTGGAGGC  
 GCTGAAAGTGGCAGACTCAAAGACCCTATTGGAGAGCGAGCGGAAAGGCTGTTTGGCAA  
 AATGGAGGACACGGACTTTGTCGGCTGGGCGCTGGATGTGCTGTCTCAAACCTCATCTC  
 TACCAGCATGCTTGGGCGGGTCAAATACAACCTGAACTCCCTGTACATGATACAGCCAC  
 TGGGCTTATACAGTATGCATTGGACCAGGGCGTGAACGTCACCCAGGTATTTCGTGGACAC  
 CGTAGGGATGCCAGAGACATACCAGGCGCGGCTGCAGCAAAGTTTTCCCGGGATTGAGGT  
 GACGGTCAAGGCCAAAGCAGATGCCCTCTACCCGGTGGTTAGTGTGCCAGCATCTGTGC  
 CAAGGTGGCCCCGACCANGCCGTGAAGAAATGGCAGTTCGTGGAGAACTGCAAGACTT  
 GGATACTGATTATGGCTCAGGCTACCCCATGATCCCAAGACAAAGCGTGGTTGAAGAGC  
 ACGTGAGCCCTGTGTTCCGCTTCCCAGTTTTGCCCGGTGAGTTGGCGCCCGGCCAAAC  
 ATCCTGGAGAAGAAGCGGAAATGTATATTGGAGACCCACCTCCCAGAATCCGAGGCCCT  
 CNGAAAACCCCTTCTATTTCTTATGAAGGGGGCCAGCCCGCCCGTTTTTCCCAGATTTTC  
 CTGGAAGCGGCTGGAATACCCCATCTTACCG

**3' Read Nucleotide Sequence:**

>OriGene 3' read for NM\_006397 unedited  
 ACCGCGGCACGCAATCTAGAGTCGAGTTTTTTTTTTTTTTTTTTTAAATCAACCAACACCCA  
 TTCTATTTAAGGTTCCAAAAGGAAGTAGCTGGACCCGGCTGCAGAGCACACTCCCACCTT  
 GCTTCTGTCCAAAAGTACATCCCCTACGTGTGGTTCTCCTTAAACAATTTTAAATGTCTG  
 GGTGGGGAAGCAGGTAGAGCGGTAGAGGCAGCTGCTAAAGGCTGGTTGCTGACTCCAG  
 GCCCGTTCCAGGAAATATCGGTGGGAAGAACGGGGACGGGCTTGGGACCCTTCATTGAG  
 GAAGTAGGATGTGATCTTCTGAGTCCCTCCTGATTCTCGGATGCTGAGTCCCTCCATAT  
 AACATCTTCCGCCTTTTCTCCAGGATGGTCTGGGCCGTGCGCCAGCTGAACCGGACAAA  
 CTGGGGGAAGCCGAACACAGGCTCCACGTGCTCCTTCAACCACGCTTTTGTCTTGGGATC  
 ATTGGGGTAGCCTGAGCCATAATCAGTATCCAAGTCCCTGCAGTTTCTCCACGAACTGCCA  
 TTTCTTACGGCTGGTCCCGGGCCACCTTGGCACAGATGCTGGCAGCACTAACCACCGG  
 GTAGAGGGCATCTGCTTTGGCCTTGACCGTCACCTCAATCCCGGAAAACTTTGCTGCAG  
 CCGCGCCTGGTATGTCTCTGGCATCCCTACAGTGTCCACGATTACCTGGGTGACGTTTAC  
 GCCCTGGTCCCATGCATACTGTATAGCCAGTGGCTGATCATGTGACGGAAGTTCAAGTTG  
 TATTGACCCCCAACTGCTGTAAGAGAGTTTGGAAACGCAATCACGCCACCGACAAT  
 TCGTGCCTCCTTTTCCAAAAGCCTTCCCCTCCCTCCAAAGGCCTTGAAGTGCCTTTATGC  
 CTAATTGCCGCGAGAGGGACTTC

**Restriction Sites:**

NotI-NotI

**ACCN:**

NM\_006397

**Insert Size:**

1140 bp

<b>OTI Disclaimer:</b>	<p>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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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. <a href="#">More info</a></p>
<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_006397.2</a> , <a href="#">NP_006388.2</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>	<p>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]</p>