

## Product datasheet for RC201975

### AGA (NM\_000027) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	AGA (NM_000027) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	AGA
Synonyms:	AGU; ASRG; GA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC201975 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

CTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCCGGCGC  
GCC

ATGGCGCGGAAGTCGAACTTGCCTGTGCTTCTCGTGCCGTTTCTGCTCTGCCAGGCCCTAGTGCGCTGCT  
CCAGCCCTCTGCCCTGGTCGTCAACACTTGGCCCTTTAAGAATGCAACCGAAGCAGCGTGGAGGGCATT  
AGCATCTGGAGGCTCTGCCCTGGATGCAGTGGAGAGCGGCTGTGCCATGTGTGAGAGAGAGCAGTGTGAC  
GGCTCTGTAGGCTTTGGAGGAAGTCCTGATGAACTTGGAGAAACCACACTAGATGCCATGATCATGGATG  
GCACTACTATGGATGTAGGAGCAGTAGGAGATCTCAGACGAATTAATAATGCTATTGGTGTGGCAGGGAA  
AGTACTGGAACATACAACACACACTTTTAGTAGGAGAGTCAGCCACCACATTTGCTCAAAGTATGGGG  
TTTATCAATGAAGACTTATCTACCAAGTCTTCAAGCTTTCATTTCAGATTGGCTTGTCTCGGAATTGCC  
AGCCAAATTTATTGGAGGAATGTTATACCAGATCCCTCAAATACTGCGGACCCTACAAACCACCTGGTAT  
CTTAAAGCAGGATATTCCTATCCATAAAGAAACAGAAGATGATCGTGGTCATGACACTATTGGCATGGTT  
GTAATCCATAAGACAGGACATATTGCTGCTGGTACATCTACAAATGGTATAAAATTCAAATACATGGCC  
GTGTAGGAGACTACCAATACCTGGAGCTGGAGCCTATGCTGACGATACTGCAGGGGCAGCCGACGCCAC  
TGGGAATGGTGATATATTGATGCGCTTCTGCCAAGCTACCAAGCTGTAGAATACATGAGAAGAGGAGAA  
GATCCAACCATAGCTTGCCAAAAAGTGATTTCAAGAATCCAGAAGCATTTCAGAAATTCCTGGGGCTG  
TTATATGTGCCAATGTGACTGGAAGTTACGGTGCTGCTTGAATAAACTTCAACATTTACTCAGTTTAG  
TTTCATGGTTTATAATTCCGAAAAAATCAGCCAACTGAGGAAAAAGTGGACTGCATC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC201975 protein sequence  
 Red=Cloning site Green=Tags(s)

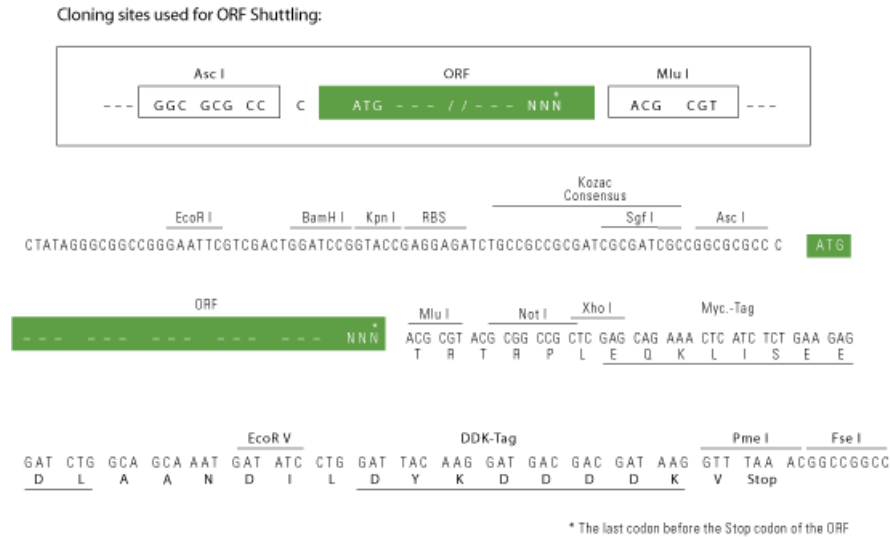
MARKSNLPVLLVPFLLCQALVRCSSPLPLVNTWPFKNATEAAWRALASGGSALDAVESGCAMCEREQCD  
 GSVGFGGSPDELGETTLDAMIMDGTMTDVGAVGDLRRIKNAIGVARKVLEHTTHTLLVGESATTF AQSMG  
 FINEDLSTASQALHSDWLARNCPNYWRNVIPDPSKYCGPYKPPGILKQDIPIHKETEDDRGHDTIGMV  
 VIHKTGHIAAGTSTNGIKFKIHGRVGDSPIPGAGAYADDTAGAAAATGNGDILMRFLPSYQAVEYMRGE  
 DPTIACQKVISRIQKHFPEFFGAVICANVTGSYGAACNKLSTFTQFSFMVYNSEKNQPTEEKVDCI

TRTRP**LEQKLISEEDLA**NDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6801\\_a06.zip](https://cdn.origene.com/chromatograms/mk6801_a06.zip)

**Restriction Sites:** AscI-MluI

**Cloning Scheme:**



**ACCN:** NM\_000027

**ORF Size:** 1038 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\\_000027.2](#), [NP\\_000018.1](#)

**RefSeq Size:** 2113 bp

**RefSeq ORF:** 1041 bp

**Locus ID:** 175

**UniProt ID:** [P20933](#)

**Cytogenetics:** 4q34.3

**Domains:** Asparaginase\_2

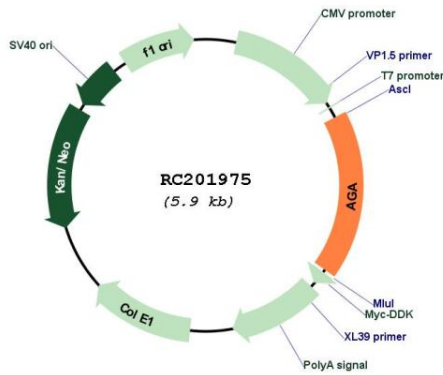
**Protein Families:** Druggable Genome, Protease

**Protein Pathways:** Lysosome, Other glycan degradation

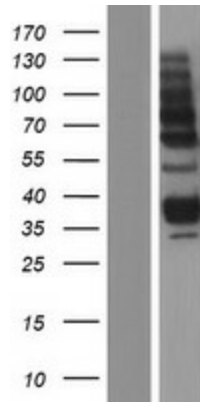
**MW:** 37.2 kDa

**Gene Summary:** This gene encodes a member of the N-terminal nucleophile (Ntn) hydrolase family of proteins. The encoded preproprotein is proteolytically processed to generate alpha and beta chains that comprise the mature enzyme. This enzyme is involved in the catabolism of N-linked oligosaccharides of glycoproteins. It cleaves asparagine from N-acetylglucosamines as one of the final steps in the lysosomal breakdown of glycoproteins. Mutations in this gene are associated with the lysosomal storage disease aspartylglycosaminuria that results in progressive neurodegeneration. Alternative splicing results in multiple transcript variants, at least one of which encodes an isoform that is subject to proteolytic processing. [provided by RefSeq, Nov 2015]

Product images:



Circular map for RC201975



Western blot validation of overexpression lysate (Cat# [LY424971]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201975 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).