

## Product datasheet for **RG235061**

### **ARTS1 (ERAP1) (NM\_001198541) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	ARTS1 (ERAP1) (NM_001198541) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ERAP1
Synonyms:	A-LAP; ALAP; APPILS; ARTS-1; ARTS1; ERAAP; ERAAP1; PILS-AP; PILSAP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG235061 representing NM\_001198541  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGTGTTCGCCCTCAAATGGTCCCTTGAACCATGTCAATTTCTACTTTCCTACTGTTGGCTCTCT  
 TAACTGTGCCACTCCTTCATGGTGTGAGAGCACTGAAGCATCTCCAAAACGTAGTGATGGGACACCATT  
 TCCTTGAATAAAAATACGACTTCCTGAGTACGTATCCAGTTTCATTATGATCTCTTGATCCATGCAAAC  
 CTTACCACGCTGACCTTCTGGGGAACACGAAAGTAGAAATCACAGCCAGTCAGCCACCAGCACCATCA  
 TCCTGCATAGTACCACCTGCAGATATCTAGGGCCACCCTCAGGAAGGGAGCTGGAGAGAGGCTATCGGA  
 AGAACCCCTGCAGGTCTGGAACACCCCGTCAGGAGCAAATGCACTGCTGGCTCCCGAGCCCTCCTT  
 GTCGGGCTCCCGTACACAGTTGTCATTCCTATGCTGGCAATCTTCGGAGACTTCCACGGATTTTACA  
 AAAGCACCTACAGAACCAAGGAAGGGAACTGAGGATACTAGCATCAACACAATTTGAACCCACTGCAGC  
 TAGAATGGCCTTCCCTGCTTTGATGAACCTGCCTTCAAAGCAAATTTCTCAATCAAATTTAGAAGAGAG  
 CCAAGGCACCTAGCCATCTCCAATATGCCATTGGTGAAATCTGTGACTGTTGCTGAAGGACTCATAGAAG  
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 CAGCAAGATAACCAAGAGTGGAGTCAAGTTTCTGTTTATGCTGTGCCAGACAAGATAAATCAAGCAGAT  
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 CCAAACAAGATCTTGCTGCTATTTCCCGACTTTCAGTCTGGTGTCTATGGAAAACCTGGGGACTGACAACATA  
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 GTGGCCCATGAACCTCACCAGTGGTTGGGAACTGGTCACTATGGAATGGTGAATGATCTTTGGC  
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 GTCAGCAGTAATGATCGGGCGAGTCTCATTAAACAATGCATTTTCAGCTCGTCAGCATTGGGAAGCTGTCCA  
 TTGAAAAGGCCTTGGATTTATCCCTGTACTTGAACATGAAACTGAAATTTATGCCCGTGTTCAGGTTT  
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 GCCTTCCTCATCAGGCTGCTAAGGGACCTCATTGATAAGCAGACATGGACAGACGAGGGCTCAGTCTCAG  
 AGCGAATGCTGCGGAGTCAACTACTCTCGCCTGTGTGCACAACATCAGCCGTGCTACAGAGGGC  
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 ACTAGATGAAAGCTTTAAGGGAGATAAAAATAAAAACCTCAGGAGTTTCCACAAAATCTTACTACTATTGGC  
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 TTGAACCTGGCTCATCTCCATAGCCACATGGTAATGGGTACAACAAATCAATTTCTCCACAAGAACACG  
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 ACAATTTGAACCATTTGAAGAAAACATCGGTTGGATGGATAAGAATTTTGATAAAAATCAGAGTGTGGCTGC  
 AAAGTAAAAGCTTGAACGTATG

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG235061 representing NM\_001198541  
 Red=Cloning site Green=Tags(s)

MVFLPLKWSLATMSFLLSSLLALLTVSTPSWCQSTEASPKRSDGTPFPWNKIRLPEYVIPVHYDLLIHAN  
 LTTLTFWGTTKVEITASQPTSTIILHSHHLQISRATLRKGAGERLSEEPLQVLEHPRQEIQIALLAPEPLL  
 VGLPYTVVIHYAGNLSETFHGFYKSTYRTKEGELRILASTQFPTAARMAFPFCDEPAFKASF SIKIRRE  
 PRHLAISNMPLVKSVTVAEGLIEDHFDVTVKMSTYLVAFIISDFESVSKITKSGVKVSVYAVPDKINQAD  
 YALDAAVTLLEFYEDYFSIPYPLPKQLAAIPDFQSGAMENWGLTTYRESALLFDAEKSSASSKLGITMT  
 VAHELAHQWFGNLVTMEWVNDLWLNIEGFAKMEFVSVSVTHPELKVGDYFFGKCFDAMEVDALNSSHPVS  
 TPVENPAQIREMFDVSYDKGACILNMLREYLSADAFKSGIVQYLQKHSYKNTKNEDLWDSMASICPTDG  
 VKGMDGFCRSRQHSSSSSHWHQEGVDVKTMMNTWTLQKGFPLITITVRGRNVHMKQEHYMKGSDGAPDTG  
 YLWHVPLTFITSKSDMVHRFLKTKTDVLI LPEEVEWIKFNVGMNGYYIVHYEDDGWDSL TGLLKGTHTA  
 VSSNDRASLINNAFQLVSIKLSIEKALDLSL YLKHETEIMPVFQGLNELIPMYKLMKDRMNEVETQFK  
 AFLIRLLRDLIDKQWTWDEGSVSRMLRSQLLLLACVHNYQPCVQRAEGYFRKWKESNGNLSLPVDVTLA  
 VFAVGAQSTEGWDFLYSKYQFSL SSTEKSQIEFALCRTQNKEKLQWLLDESFKGDKIKTQEPQILTLIG  
 RNPVGYPLAWQFLRKNWNKL VQKFELGSSSIAHMVMGTTNQFSTRTRLEEVKGFSSSLKENGSQLRCVQQ  
 TIETIEENIGWMDKNFDKIRVWLQSEKLERM

TRTRPLE - GFP Tag - V

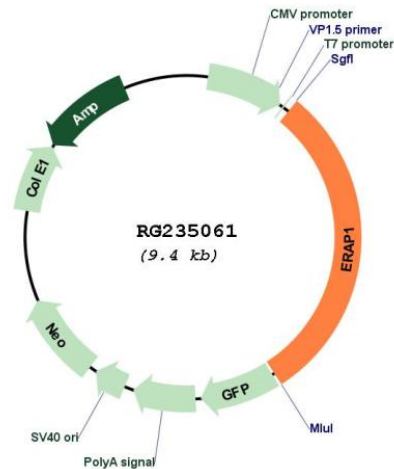
**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**



## Plasmid Map:



ACCN: NM\_001198541

ORF Size: 2823 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\\_001198541.2](#)

RefSeq Size: 4843 bp

RefSeq ORF: 2826 bp

Locus ID: 51752

UniProt ID: [Q9NZ08](#)

Cytogenetics: 5q15

**Protein Families:** Druggable Genome, Protease, Secreted Protein

**Gene Summary:** The protein encoded by this gene is an aminopeptidase involved in trimming HLA class I-binding precursors so that they can be presented on MHC class I molecules. The encoded protein acts as a monomer or as a heterodimer with ERAP2. This protein may also be involved in blood pressure regulation by inactivation of angiotensin II. Three transcript variants encoding two different isoforms have been found for this gene.[provided by RefSeq, Oct 2010]