

Product datasheet for **RC205249**

ARTS1 (ERAP1) (NM_001040458) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ARTS1 (ERAP1) (NM_001040458) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ARTS1
Synonyms:	A-LAP; ALAP; APPILS; ARTS-1; ARTS1; ERAAP; ERAAP1; PILS-AP; PILSAP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC205249 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGTGTTCGCCCTCAAATGGTCCCTGCAACCATGTCATTTCTACTTTCCTACTGTTGGCTCTCT
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 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC205249 protein sequence
Red=Cloning site Green=Tags(s)

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MVFLPLKWSLATMSFLLSSLLALLTVSTPSWCQSTEASPKRSDGTPFPWNKIRLPEYVIPVHYDLLIHAN
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VGLPYTVVIHYAGNLSETFHGFYKSTYRTKEGELRILASTQFEPPTAARMAFPDFDEPAFKASF SIKIRRE
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VSSNDRASLINNAFQLVSI GKL SIEKALDLSL YLKHETEIMPVFQGLNELIPMYKLMKDRMNEVETQFK
AFLIRLLRDLIDKQWTWDEGSV SERMLRSQ LLLLACVHNYQPCVQRAEGYFRKWKESNGNLSLPVDVTLA
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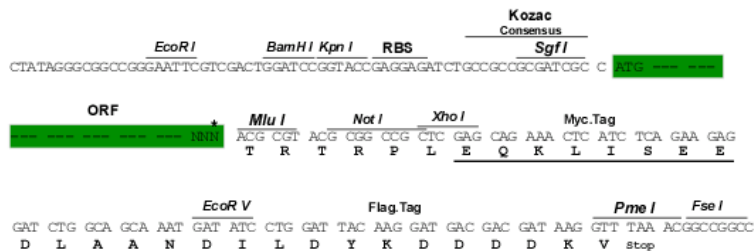
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Chromatograms: https://cdn.origene.com/chromatograms/mk6695_a10.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



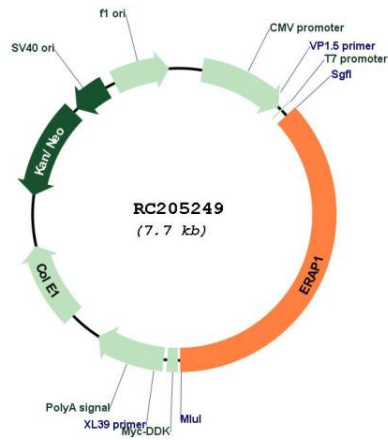
* The last codon before the Stop codon of the ORF

ACCN: NM_001040458

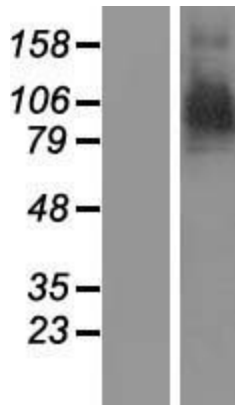
ORF Size: 2823 bp

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:	<ol style="list-style-type: none">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_001040458.3
RefSeq Size:	5085 bp
RefSeq ORF:	2826 bp
Locus ID:	51752
UniProt ID:	Q9NZ08
Cytogenetics:	5q15
Protein Families:	Druggable Genome, Protease, Secreted Protein
MW:	107.2 kDa
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]

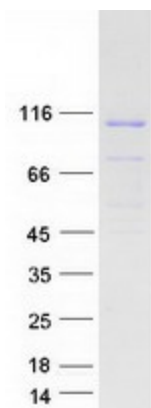
Product images:



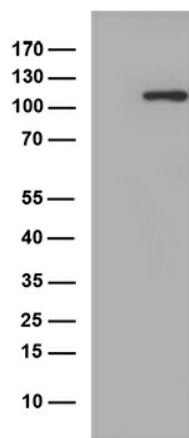
Circular map for RC205249



Western blot validation of overexpression lysate (Cat# [LY421774]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205249 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ERAP1 protein (Cat# [TP305249]). The protein was produced from HEK293T cells transfected with ERAP1 cDNA clone (Cat# RC205249) using MegaTran 2.0 (Cat# [TT210002]).



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY ERAP1 (Cat# RC205249, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-ERAP1 (Cat# [TA812892])(1:250).