

Product datasheet for **RC220898**

GART (NM_175085) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GART (NM_175085) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GART
Synonyms:	AIRS; GARS; GARTF; PAIS; PGFT; PRGS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC220898 representing NM_175085
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGCAGCCCAGTACTTATAATTGGCAGTGGAGGAAGGGAACATACGCTGGCCTGGAACTTGCACAGT
 CTCATCATGTCAAACAAGTGTGGTTGCCCCAGGAAACGCAGGCACTGCCTGCTCTGAAAAGATTTCAAA
 TACCGCCATCTCAATCAGTGACCACACTGCCCTTGCTCAATTCTGCAAAGAGAAGAAAATTGAATTTGTA
 GTTGTGGACCAGAAGCACCTCTGGCTGCTGGGATTGTTGGGAACCTGAGGTCTGCAGGAGTGCAATGCT
 TTGGCCCAACAGCAGAAGCGGCTCAGTTAGAGTCCAGCAAAGGTTTGCCAAAGAGTTTATGGACAGACA
 TGGAAATCCAACCGCACAAATGGAAGGCTTTCACCAAACCTGAAGAAGCCTGCAGCTTCATTTTGTGAGTGA
 GACTTCCCTGCTTTGGTTGTGAAGGCCAGTGGTCTTGCAGCTGGAAAAGGGGTGATTGTTGCAAAGAGCA
 AAGAAGAGGCCTGCAAAGCTGTACAAGAGATCATGCAGGAGAAAGCCTTTGGGGCAGCTGGAGAAACAAT
 TGTCTTGAAGAACTTCTTGACGGAGAAGAGGTGTCGTGTCTGTGTTTCACTGATGGCAAGACTGTGCC
 CCCATGCCCCACAGCAGGACCATAAGCGATTACTGGAGGGAGATGGTGGCCCTAACACAGGGGGAAATGG
 GAGCCTATTGTCCAGCCCCTCAGGTTTCTAATGATCTATTAATAAAAATTAAGATACTGTTCTTCCAGAG
 GACAGTGGATGGCATGCAGCAAGAGGGTACTCCATATACAGGTATTCTCTATGCTGGAATAATGCTGACC
 AAGAATGGCCCAAAGTTCTAGAGTTTAAATGGCGTTTTGGTGATCCAGAGTGCCAAAGTAATCCTCCCAC
 TTCTTAAAAGTGATCTTTATGAAGTGATTCAGTCCACCTAGATGGACTGCTCTGCACATCTCTGCCTGT
 TTGGCTAGAAAACCACACCGCCCTAACTGTTGTATGGCAAGTAAAGTTATCCTGGAGACTACACCAAG
 GGTGTAGAGATAACAGGGTTTCTGAGGCTCAAGCTCTAGGACTGGAGGTGTTCCATGCAGGCACTGCC
 TCAAAAATGGCAAAGTAGTAACATCATGGGGTAGAGTTCTTGCAGTACAGCCATCCGGGAAAATCTCAT
 ATCAGCCCTTGAGGAAGCCAAGAAAGGACTAGCTGCTATAAAGTTTGAGGGAGCAATTTATAGGAAAGAC
 GTCGGCTTTCGTGCCATAGCTTCTCCAGCAGCCCAGG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC220898 representing NM_175085
 Red=Cloning site Green=Tags(s)

MAARVLIIGSGGREHTLAWKLAQSHHVQVLVAPGNAGTACSEKISNTAISISDHTALAQFCKEKKIEFV
 VVGPEAPLAAGIVGNLRSAGVQCFGPTAEAAQLESSKRFAKEFMDRHGIPTAQWKAFTKPEEACSFILSA
 DFPALVVKASGLAAGKGVIVAKSKEEACKAVQEIMQEKAFGAAGETIVIEELLDGEEVSLCFTDGTVA
 PMPPAQDHRKRLLEGDGGPNTGGMGAYCPAPQVSNLLLLIKDVTQLRTVDGMQEQETPYTGILYAGIMLT
 KNGPKVLEFNCRFGDPECQVILPLLKSDLYEVIQSTLDGLLCTSLPVWLENHTALTVVMASKGYPGDYTK
 GVEITGFPEAQUALGLEVFHAGTALKNGKVVTHGGRVLAVTAIRENLISALEEAKKGLAAIKFEGAIYRKD
 VGFRAIAFLQQR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk8041_g06.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_175085

ORF Size: 1299 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_175085.3](#)

RefSeq Size: 2162 bp

RefSeq ORF: 1302 bp

Locus ID: 2618

UniProt ID: [P22102](#)

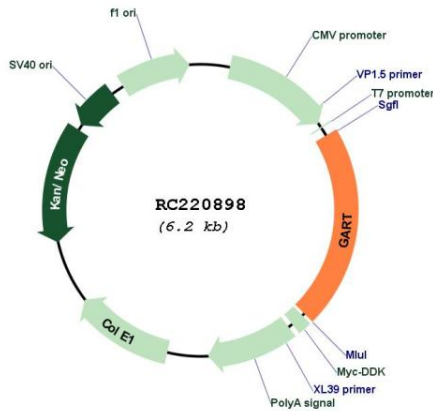
Cytogenetics: 21q22.11

Protein Pathways: Metabolic pathways, One carbon pool by folate, Purine metabolism

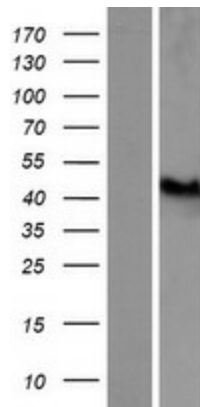
MW: 45.9 kDa

Gene Summary: The protein encoded by this gene is a trifunctional polypeptide. It has phosphoribosylglycinamide formyltransferase, phosphoribosylglycinamide synthetase, phosphoribosylaminoimidazole synthetase activity which is required for de novo purine biosynthesis. This enzyme is highly conserved in vertebrates. Alternative splicing of this gene results in two transcript variants encoding different isoforms. [provided by RefSeq, Jul 2008]

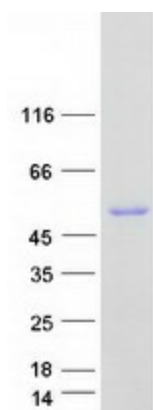
Product images:



Circular map for RC220898



Western blot validation of overexpression lysate (Cat# [LY406318]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC220898 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified GART protein (Cat# [TP320898]). The protein was produced from HEK293T cells transfected with GART cDNA clone (Cat# RC220898) using MegaTran 2.0 (Cat# [TT210002]).