

Product datasheet for **RG201144**

Phosphoribosyl pyrophosphate amidotransferase (PPAT) (NM_002703) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Phosphoribosyl pyrophosphate amidotransferase (PPAT) (NM_002703) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Phosphoribosyl pyrophosphate amidotransferase
Synonyms:	ATASE; GPAT; PRAT
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG201144 representing NM_002703
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGAGCTGGAGGAGTTGGGGATCCGAGAGGAATGTGGCGTGTTGGGTGCATCGCCTCAGGAGAGTGGC
 CCACGCAGCTGGATGTACCGCATGTGATCACTCTGGGACTCGTGGGGCTGCAGCACCGGGGTCAGGAGAG
 TGCTGGTATTGTGACTAGTGATGGGAGTTCCGTGCCAACATTCAAATCACACAAGGGAATGGGTCTTGTA
 AATCACGCTTTTACTGAAGACAATTTGAAAAATTATATGTTTCAAATCTTGGAATTGGACACACCAGGT
 ATGCCACCACAGGAAAATGTGAAGTAAATTTGTCAGCCCTTCGTTGTTGAAACTTTCATGGGAAGAT
 AGCTGTGGCACATAATGGCGAATTGGTAAATGCTGCTCGATTAAGGAAAAAGCTTCTGCGTCATGGTATT
 GGTCTGTCTACAAGTTCTGATAGTGAATGATTACCCAGTTACTGGCGTATACCCCTCTCAGGAACAAG
 ATGACACCCAGACTGGGTAGCCAGGATTAATACTTGTGAAGGAAGCACCCACAGCATACTCCCTGCT
 TATAATGCACAGAGATGTTATTTATGCAGTACGAGATCCTTATGGAAATCGTCCCTTATGCATTGGTCGT
 CTATTCCAGTGTCTGATATAAATGACAAAGAGAAAAAACATCAGAAACAGAAGGATGGGTGGTGTCTT
 CAGAATCTTGTAGCTTCTTATCTATTGGTGCAAGATATTACCGTGAAGTCTTGCCTGGAGAAATTGTGGA
 AATATCCAGACACAATGTCCAACTCTTGATATTATCAAGGTCTGAAGGAAACCCAGTGGCTTTTTGT
 ATCTTTGAATATGTTTATTTTGAAGACCAGACAGTATGTTTGAAGACCAATGGTTTATACAGTAAGAT
 ACCGTTGTGGCCAGCAGCTAGCGATTGAAGCACCTGTGGATGCAGATTTGGTTAGCACTGTTCCAGAATC
 TGCTACGCCTGCTGCTCTTGCTTACGCAGGAAAGTGTGGACTTCCATATGTGGAGGTGCTGTGTA
 CGGATGTAGGGAGAACCCTTCAATCAGCCAAACATGAGGTTAAGACAACCTGGTGTGCAAAAAATTTG
 GAGTATTGTCAGACAACCTTAAAGGCCAAAAGAATTGTTCTTGTAGATGATTCAATTGTGAGGCAATC
 CATCTCACCTATAATAAACTGCTCAAAGAATCTGGTGCAAAAGAGGTACACATTCGAGTAGCTTACCA
 CCAATTAATATCCATGCTTTCATGGGAATAAACATTCTTCAAAAAGAGGCTCATTGCCAATAAACAG
 AATTTGATCACCTTGCAGAAATCTAGGAGCAAACAGTGTGTGTATCTGTGAGTGAAGGACTGGTTTC
 ATCTGTACAAGAAGGGATAAAGTTTAAAAAACAGAAAGAGAAAAAGCACGATATTATGATCCAAGAAAAT
 GGAATGGTCTGGAAATGTTTGAAGAGTGGTCAATGTACAGCTTGTCTACTGGAAAATATCCTGTAG
 AATTAGAATGG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG201144 representing NM_002703
 Red=Cloning site Green=Tags(s)

MELEELGIREECGVFGCIASGEWPTQLDVPVITLGLVGLQHRGQESAGIVTSDGSSVPTFKSHKMGMLV
 NHVFTEDNLKLYVSNLIGHTRYATTGKCELENCQPFVETLHGKIAVAHNGELVNAARLRKLLRHGI
 GLSTSSDSEMITQLLAYTPPQEQQDDTPDWVARIKMLMKEAPTAYSLLIMHRDVIYAVRDPYGNRPLCIGR
 LIPVSDINDKEKKTSETEGWVVSSESCSFLSIGARYYREVLPEIVEISRHNVTLDIISRSEGNPVAFC
 IFEYVYFARPDMSFEDQMVYTVRYRCGQQLAIEAPVDADLVSTVPESATPAALAYAGKGLPYVEVLCKN
 RYVGRF IQPNMRLRQLGVAKKFVLSDFKGRIVLVDDSIVRGNTISPIIKLLKESGAKEVHIRVASP
 PIKYPCFMGINIPTKEELIANKPEFDHLAEYLGANSVVYLSVEGLVSSVQEGIKFKKQKEKKHDIQEN
 NNGLECFEKS GHCTA CLTGKYPVELEW

TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN: NM_002703

ORF Size: 1551 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_002703.3](#), [NP_002694.3](#)

RefSeq Size: 3756 bp

RefSeq ORF: 1554 bp

Locus ID: 5471

UniProt ID: [Q06203](#)

Cytogenetics: 4q12

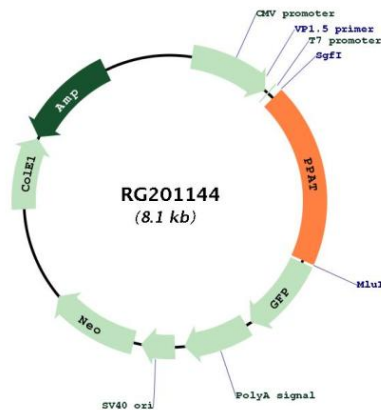
Domains: GATase_2, Pribosyltran

Protein Families: Druggable Genome, Protease

Protein Pathways: Alanine, aspartate and glutamate metabolism, Metabolic pathways, Purine metabolism

Gene Summary: The protein encoded by this gene is a member of the purine/pyrimidine phosphoribosyltransferase family. It is a regulatory allosteric enzyme that catalyzes the first step of de novo purine nucleotide biosynthetic pathway. This gene and PAICS/AIRC gene, a bifunctional enzyme catalyzing steps six and seven of this pathway, are located in close proximity on chromosome 4, and divergently transcribed from an intergenic region. [provided by RefSeq, Mar 2011]

Product images:



Circular map for RG201144