

Product datasheet for **RN217147**

Gars (NM_001271139) Rat Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Gars (NM_001271139) Rat Untagged Clone
Tag:	Tag Free
Symbol:	Gars
Synonyms:	GlyRS; RGD1559871
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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Fully Sequenced ORF: >RN217147 representing NM_001271139
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCCCTGTCTGCTCCCCACGCTGCTCAGAGCCACCCGCGCCGCGCTGCTCCTACAGTCGCCCGAGTGG
 TCGCAGCGCCCGGTCTCAGCGGCTCCTCAGCGCTCCCGCGCAGCCCGCGCCTCTCCGAGCAGCATGGA
 CAGCGCCGAGGAGCTGCTAGCCCCATTGCGGCTAGCTGTGCGCCAGCAGGGAGACTTTGTACGGAAGTTA
 AAAGAAGATAAAGCCCCACAAGTGGATGTGGACAGAGCAGTAGCTGAGCTCAAGGCCCGAAGAGGGTTC
 TGAAGCAAAGGAGCTGGCGTTGCAGCCCAAAGATGACATCGTAGATAGAGCAAAAATGGAGGATACTTT
 GAAGAGGAGATTTTTCTACGATCAAGCTTTTGTATTTATGGAGGTGTCAGTGGTTTGTATGACTTTGGG
 CCAGTGGGATGTGCTTTGAAGAACAATATCATCCAGACCTGGAGGCAGCACTTTATCCAAGGGAACAGA
 TCCTGAAATGACTGCACCATGCTCACCCCGAGCCAGTTTTAAAGACCTCTGGCCATGTAGACAAATT
 TGCTGACTTCATGGTGAAGGACGTGAAGAACGGAGAGTGTTCGCGCGGACCACCTGTTGAAAGCTCAT
 TTACAGAAACTGATGTCAGATAAGAAGTCTGCTGAGAAGAAATCAGAGATGGAAGTGTCTTGCC
 AGCTTGATAACTATGGACAACAAGAAGTGGCGGATCTTTTTGTGAACTATAATGTAAGTCTCCACCAC
 TGGCAATGACCTGTCCCCTCCGGTACCTTTAACTTAATGTTCCAGACCTTCATTGGGCCTGGAGGAAAC
 ATGCTGGATATCTGAGACCAGAAACTGCACAGGGAATTTTCTAAATTTCAAACGACTTTTGAATTCA
 ACCAAGGGAAGTTGCCTTTTGTGCTGCACAGATTGAAACTCCTTTAGAAATGAGATCTCGCCCGGTC
 TGGACTGATCCGAGTCAGGGAATCACAAATGGCAGAGATCGAGCACTTTGTAGATCCCACTGAGAAAAC
 CATCCCAAGTCCCGAGCGTGGCCGACCTCTACCTTTATTTGACTCTGCCAAAGCCAGGTCCTGGAC
 AGTCTGCTCGCAAGATGCGTCTGGGAGATGCTGTTGAACAGGGTGTGATTAACAACCTCAGTATTAGGCTA
 TTTTATTGGCCGATCTACCTCTACCTCACGAAGGTTGGAATATCTCTGATAAACTCCGCTTCCGACAG
 CATATGGAGAATGAGATGGCCATTATGCTGCGACTGCTGGGATGCTGAGTCCAAAACGTCCTATGGCT
 GGATCGAGATTGTTGGATGTGCTGACCGATCCTGCTATGACCTCTCCTGTGATGCTCGAGCCACCAAAGT
 CCCGCTGGTGGCTGAGAAGCCCCGAAAGAGCCCCAAAACAGTTAACGTTGTACAGTTTGAAGCCAAACAG
 GGAGCCGTGGGCAAGGCGTACAAGAAAGATGCAAAGCTGGTGTGGAGTACCTCGCGCCTGCGATGAGT
 GCTACATTACCGAGATGGAGCTGCTGCTGAGCGAGAAAGGGGAATTCATTGAACTGAAGGAAAAAC
 ATTTAGTTAACAAAAGACATGGTCAAGTGTGAAGAGATTCCAGAAAACACTACACGTGGAAGAAGTTGTT
 CCGAGTGAATTGAGCCCTCTTTGGCCTGGGCAGGATCATGTATACCATATTGGAACATACATTCCACG
 TCCGGGAGGGAGATGAGCAGAGAAGTTCAGTTCCCTGCTGTGGTTGCTCCATTCAAATGTTCTGT
 CCTTCCACTGAGCCAAAACCAAGAGTTTATGCCATTTGTCAAGGAATTATCGGAAGCTCTGACTCGAAAT
 GGCGTGTCTCATAAAGTTGACGATTCTCTGGTCTATTGGAAGGCGCTATGCAAGAACTGATGAGATTG
 GCGTGGCGTTTGGCATCACCATTGACTTTGATACAGTGAACAAGACCCCCACACTGCAACTCTGAGGGA
 CCGAGACTCCATGAGACAGATAAGGGCAGAGGTCTCTGAACTGCCAGTGTGGTCCGTGATCTGGCCAAT
 GGCAACATCACTTGGGCTGATGTGGAGGCCAGGTACCCCTCTTTGAAGGGCAAGAGACTGGCAAGAAGG
 AGACAGTGAAGAATGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
ACCN: NM_001271139
Insert Size: 2187 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

OTI Annotation:	Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
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:	<u>NM_001271139.2</u> , <u>NP_001258068.1</u>
RefSeq Size:	2459 bp
RefSeq ORF:	2187 bp
Locus ID:	297113
UniProt ID:	<u>Q5I0G4</u>
Cytogenetics:	4q24
Gene Summary:	Catalyzes the ATP-dependent ligation of glycine to the 3'-end of its cognate tRNA, via the formation of an aminoacyl-adenylate intermediate (Gly-AMP). Also produces diadenosine tetraphosphate (Ap4A), a universal pleiotropic signaling molecule needed for cell regulation pathways, by direct condensation of 2 ATPs. Thereby, may play a special role in Ap4A homeostasis.[UniProtKB/Swiss-Prot Function]