

## Product datasheet for **MR210334**

### Gars (NM\_180678) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Gars (NM_180678) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Gars
Synonyms:	Gena201; GENA202; Nmf249; Sgrp23
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide  
Sequence:

>MR210334 ORF sequence  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGCCCTGTCTGCTCCCCTCGTGCTCAGAGCCACCCGCGCCGCGCTGCCGCTCCTGTGCCGCCCCGAG  
TGGTCGCAGCGTCCGCGTCTCAGCGGCTCCTCAGCGCTCCCGCGCAGCCCGCCGCTCCCGAGCAGCAT  
GGACAGCGCGGAGGAGCTGCTGGCCCCACTGCGGCTAGCCGTGCGCCAGCAGGGAGACTTTGTACGGAAG  
TAAAAGAAGATAAAGCCCCACAAGTGGATGTGGACAGAGCAGTAGCTCAAGGCCGGAAGAGGG  
TTCTGGAAGCAAAGGAGCTGGCATTGCAGCCAAAGATGACATCGTAGATAGAGCAAAAATGGAAGATAC  
GTTGAAGAGGAGGTTTTTCTACGATCAGGCTTTTGCTATTTATGGAGGTGTCAGTGGATTGTATGACTTC  
GGGCCGTAGGATGTGCTTTGAAGAACAATATCATCCAGGCTGGAGGCAGCACTTTATCCAAGAGGAGC  
AGATCCTGGAGATTGACTGCACCATGCTCACCCCTGAGCCAGTTTTAAAGACCTCTGGCCACGTAGACAA  
ATTTGCTGACTTCATGGTGAAGGACGTGAAGAACGGAGAGTGCTCCGAGCAGACCACCTGTTGAAAGCT  
CATTTACAGAAACTGATGTCAGATAAAGAAGTGCTGCTGAGAAGAAGTCAGAGATGGAAAGTGCTTTGG  
CCCAGCTTGATAACTATGGACAACAAGAACTTGC GGATCTTTTTGTGAACATAATGTAAAAATCTCCAC  
CACTGGCAATGACCTGTCCCCTCCGGTACCTTTAACTTAATGTTCCAGACCTTCATTGGGCCTGGAGGA  
AATATGCCTGGATATCTGAGACCAGAACTGCACAGGGAATTTTCTGAATTTCAAACGACTTTTGGAAAT  
TCAACCAAGGGAAATTGCCTTTTGTGCTGCCAGATTGGAACTCCTTCAGAAATGAGATCTCACCTCG  
GTCTGGACTGATCCGAGTCAGGGAGTTTACAATGGCAGAGATTGAGCACTTTGTAGATCCCACTGAGAAA  
GACCATCCAAGTTCAAAAGTGTGGCCGACCTTGCCCTTATTTGTACTCAGCAAAAGCCAGGTCAGT  
GACAGTCTGCTCGGAAGATGCGTCTGGGAGATGCTGTTGAACAGGGTGTGATTAACAACACTCAGTATTAG  
CTATTTTATTGGCCGCATCTACCTCTACCTCACGAAGTTGGAATATCTCCTGATAAACTCCGCTTCCGG  
CAGCATATGGAGAATGAGATGGCCATTATGCCTGCGACTGCTGGGATGCCGAGTCCAAAACGCTCTATG  
GCTGGATTGAGATTGTTGGATGTGCTGACCGTTCTGCTACGACCTCTCCTGTCATGCTCGAGCCACCAA  
AGTTCCACTAGTAGTGAGAACTCTGAAAGAACCCAAAACAGTTAACGTTGTACAGTTTGAGCCCAAC  
AAGGGCGCCGTGGCAAGGCGTACAAGAAGGATGCAAAGCTAGTGTGGAGTATCTCAGCGCCTGTGATG  
AGTGCTACATTTAGAGATGGAGCTGCTGCTGAGTGAGAAAGGGGAATCACTATTGAACTGAAGGAAA  
AACATTTAGTTAACGAAAGACATGGTCAGTGTGAAGAGATTCCAGAAAACACTGCATGTGAAGAAGTT  
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ATGTCAGAGAGGAGATGAACAGAGAACGTTCTTCAGTTTCCCTGCTGTGGTTGCTCCATTCAAATGTTT  
TGTCCTTCCACTGAGCCAGAACCAAGAGTTTATGCCATTTGTCAAGGAATTATCCGAAGCTCGACCAGG  
AACGGCGTGTCTCATAAAGTCGATGACTCCTCTGGGTCTATTGGAAGGCGCTATGCAAGAAGTATGAGA  
TTGGCGTGGCTTTCGGCATCACTATTGACTTTGATACAGTGAACAAGACGCCCCACACTGCAACTCTGAG  
GGACCGAGACTCCATGAGACAGATAAGGGCAGAGGTCTCTGAGCTGCCAGTGTGGTCCGCGATCTGGCC  
AACGGCAACATTACCTGGGCTGATGTGGAGGCCAGGTACCCACTTTTGAAGGGCAAGAGACTGGCAAGA  
AGGAGACAGTAGAGGAA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
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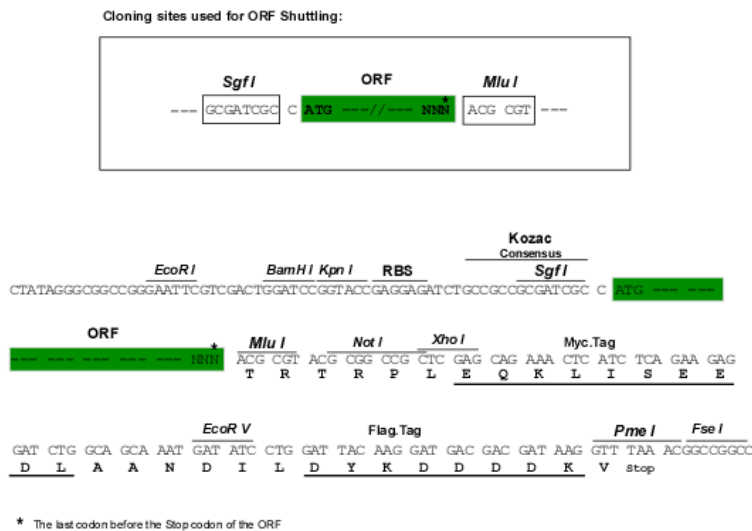
**Protein Sequence:** >MR210334 protein sequence  
Red=Cloning site Green=Tags(s)

MPCLLPSSLRATRAALPLLSPPRVVAASASQRLLSAPAQPAASRSSMDSAELLAPLRLAVRQQGDFVRK  
 LKEDKAPQVDVDRVAELKARKRVLEAKELALQPKDDIVDRAKMEDTLKRRFFYDQAFAYGGVSGLYDF  
 GPVGCALKNIIQAWRQHF IQEEQILEIDCTMLTPEPVLKTSGHVDKFAFMVKDVKNGECFRADHLLKA  
 HLQKLMDSKKCSAEKKSEMESVLAQLDNYGQQLADLFVNYNVKSPPTTGNLSPVPFNLMFQTFIGPGG  
 NMPGYLRPETAQGI FLNFKRLLEFNQGLPF AAAQIGNSRNEISPRSGLIRVREF TMAEIEHFVDPTEK  
 DHPKFQSVADLCLYL YSAKAQVTGQSARKMRLGDAVEQGVINNSVLGYF IGRIYLYLTKVIGISPDKLRFR  
 QHMENEMAHYACDCWDAESKTSYGWIEIVGCADRSCYDLSCHARATKVPLVAEKPLKEPKTVNVVQFEPN  
 KGAVGKAYKDKAKLVLEYL SACDECIYSEMELLSEKGEFTIETEGKTFQLTKDMVSVKRFQKTLHVEEV  
 VPSVIEPSFGLGRIMYTI EHTFHVREGDEQRTFFSFPVAVPFKCSVLPLSQNQEFMPFVKELSEALTR  
 NGVSHKVDSSSGISGRRYARTDEIGVAFGITIDFDTVNKTPHTATLRDRDSMRQIRAEVSELPSVVRDLA  
 NGNITWADVEARYPLFEGQETGKKETVEE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_180678

**ORF Size:** 2190 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\\_180678.2](#)

**RefSeq Size:** 2390 bp

**RefSeq ORF:** 2190 bp

**Locus ID:** 353172

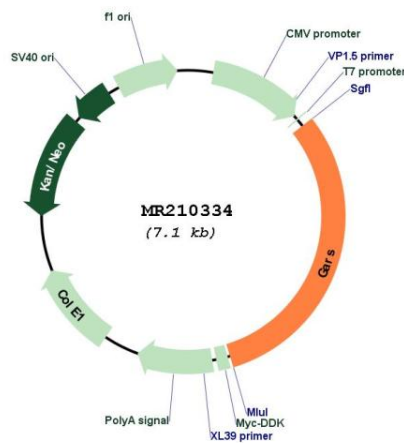
**UniProt ID:** [Q9CZD3](#)

**Cytogenetics:** 6 27.29 cM

**MW:** 81.9 kDa

**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]

### Product images:



Circular map for MR210334