

Product datasheet for **MG211342**

Aars (BC033273) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Aars (BC033273) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Aars
Synonyms:	MGC37368
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

**ORF Nucleotide
Sequence:**

>MG211342 representing BC033273
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGATGCCACTTTAACAGCAGAGAGATCCGAGAGCGGTTTATAAATTTCTTCAGACGAAATGAGCACA
 CCTATGTCCACTTCCGCCACCATCCCTCTGGATGACCCCACTCTGCTCTTCGCCAACGCTGGCATGAA
 CCAGTTCAAACCCATCTTCTAAACACAATCGACCCATCTCACCCATGCGAAGCTGAGCAGAGCTGCC
 AATACCCAGAAATGCATCCGAGCTGGGGCAAGCACAACGACCTGGATGACGTGGCAAGGATGTCTACC
 ACCACACTTTCTTTGAGATGCTGGGCTCCTGGTCTTTGGGGACTATTTCAAGGAATTGGCATGTAAGAT
 GGCCCTGGAACCTCTTACCCAGGAGTTTGGTATCCAGTTGAAAGACTCTATGCTCACTTACTTTGGTGGT
 GATGAGGCGGCCGCCTAGAGCCAGATCTGGAGTGCAGACAGATTTGGCAAAATTTAGGACTGGATGAAG
 CCAGAATCCTCCCTGGCAACATGAAGGACAATCTGGGAGATGGGTGACACAGGCCCTGTGGTCCCTG
 CAGCGAGATCCACTATGACCGCATTGGTGGCAGGGACCGCGCACACCTTGTCAACCAGGATGACCCCAAT
 GTGCTGGAGATCTGGAACCTCGTGTTCATCCAGTATAACAGGGAGTCGGATGGTGTCTGAAACCTTTC
 CCAAGAAAAGCATCGACACAGGGATGGGCCTAGAGAGGCTGGTGTCTGTGCTGCAGAACAAGATGTCCAA
 CTACGACACCGACCTTTTCATGCCTTACTTCGAAGCCATTGAGAAGGACACCGGCCCGCCGGCGTACT
 GGAAGGTTGGTGTGAGGATGCAGACGGAATCGACATGGCCTACCGGTTCTGGCTGACCACGCCCGGA
 CCATCACTGTGGCGCTGGCTGATGGCGGCCGCCTGACAACACAGGACGGGGTACGTGCTGAGACGGAT
 CTTTCGCCGAGCTGTTCCGTATCCCATGAGAACTGAATGCCAGCAGGGTTTCTTCGTACATTGGTT
 GATGTTGTCGTTCAATCCCTGGGAGACGATTTCTGAGCTGAAGAAGGACCCAGAGATGGTGAAGGACA
 TCATTAATGAAGAAGAGGTGCAGTTTCTCAAGACTCTCAGCCGAGGGCGGCATCCTGGACCGAAAAAT
 TCAGAGCTTAGGAGACTGCAAAACCATCCAGGTGACACCGCTTGGCTCCTCTATGATACTTATGGATT
 CCAGTGGACCTCACTGGATTGATTGCTGAAGAGAAGGGCCTGGTGGTAGATATGAATGGCTTTGAGGAAG
 AGAGGAGACTGGCCAGCTGAAGTACAGGGCAAGGGAGCAGGGGACGAAGACCTCATGCTGGACAT
 TTACGCTATTGAAGAGCTCCGGGCAAAGGGTTGGAGGCCACAGATGATTCTCAAAGTATAACTACCAA
 TCAGACTCCAGTGGTAGCTACGTGTTGAGTGTACAGTGGCTACCGTCTGCTGCTGCGTGGGAAAAGA
 TGTTTGTGGACGAGGTGGTCACTGGCCAGGAGTGTGGAGTGGTGTGACAAAGACCTGTTTCTATGCGGA
 GCAAGGAGGGCAGATCTACGATGAAGGCTACTTGGTGAAGTGCAGCAGCAGTGAAGCAAAACCGAG
 TTTACAGTGAAGAACGCTCAGGTCGAGGCGGGTACGTGCTGCACATAGGAACGATATATGGTAACCTGA
 AAGTGGGGATCAAGTCCGGCTGTTATTGATGAGCCCGCGGAGACCGTCTGAGCAACCACACAGC
 TACACACATCCTCAACTTCGCCTTGCCTCGGTGCTTGGGGAAGCGGACCAGAAAGGTTCACTGGTTGCT
 CCTGACCGCTTCGGTTTGACTTCACTGCCAAGGGAGCCATGTCCACCCAGCAAATCAAGAAGGCTGAAG
 AGATTGTCAATGGCATGATTGAGGCAGTAAGCCTGTCTACACCCAGGATGTCCCTGGCAGCAGCAAA
 AGCCATCCAGGGCCTTCGAGCTGTGTTGATGAGACCTATCCTGACCCGTTTCGAGTCTGCTCCATTGGG
 GTCCCGTGTGAGAGCTGCTGGATGACCCGTGTGGCCTGCTGGTCCCTTACTTCTGTTGAGTTCTGTG
 GAGGAACACATCTACGAAATCTAGCCACGCAGGCGCTTTGTGATAGTGACAGAAGAAGCTATTGCCAA
 GGGTATCCGGAGGATTGTTGCTGCACAGGTGCTGAAGCCAGAAGGCTCTCAGGAAGTCAAGAACCTTG
 AAGAAATCTCTCTGCCATGGAGGCCAAAGTGAAGGCCAGACTGCACCAACAAGGACGTGCAGAGGG
 AAATTGCTGACCTCGGTGAGGCCCTGGCCACTGCAGTATCCCCAGTGGCAGAAAGATGAACAACGAGA
 GACTCTGAAGTCCCTGAAGAAAGTCAAGGATGACCTAGACCGGGCCAGCAAGGCCGATGTGCAGAAGCGA
 GTGTTAGAGAAGACAAAGCAGCTGATTGACAGCAACCCCAACAGCCGCTGGTCACTCCTGGAGATGGAGA
 GTGGAGCATCGGCCAAGGCCCTGAATGAAGCGTTGAAGCTTTTCAAGACGATTCTCCTCAGACATCTGC
 CATGCTGTTACGGTGGACAATGAGGCTGGCAAGATCACGTGCTTGTGCCAGGTTCCCCAGAATGCAGCC
 AACCGGGGACTGAAAGCCAGCAGTGGTCCAGCAGGTTTCAAGCCTGATGGATGGTAAAGCGGTGGCA
 AGGACATGTCGCCAGGCCACAGGCAAGAACGTGGGCTGCCTCAGGAAGCACTGCAGTGGCTACCTC
 CTTGCCAGCTCCGTCTGGGAGATGTGAAGAAC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >MG211342 representing BC033273
 Red=Cloning site Green=Tags(s)

MDATLTAREIRERFINFFRRNEHTYVHSSATIPLDDPTLLFANAGMNQFKPIFLNTIDPSHPMAKLSRAA
 NTQKCIRAGGKHNDLDDVGKDVYHHTFFEMLSWSFGDYFKELACKMALELLTQEFGIPVERLYVTFYGG
 DEAAAGLEPDLERQIQWNLGLDEARILPGNMKDNFWEAGDTPGCGPCSEIHYDRIGGRDAAHLVNQDDPN
 VLEIWNLVFIQYNRESGVLKPLPKSIDTGMGLERLVSVLQNKMSNYDTDLFMPYFEAIQKGTGARPYT
 GKVGAEDADGIDMAYRVLADHARTITVALADGGRPDNTGRGYLRRILRAVRYSHEKLNASRGFFATLV
 DVVVQSLGDAFPELKKDPEMVKDIINEEEVQFLKTL SRGRRILDRKIQSLGDCKTIPGDTAWLLYDTYGF
 PVDLTGLIAEEKGLVVDMNGFEEERRLAQLKSQKGAGDEDLIMLDIYAEELRAKGLEATDDSPKYNYQ
 SDSSGSYVFECTVATVLALRREKMFVDEVVTGQECGVLDKTCFYAEQGGQIYDEGYLVKVDSSDKTE
 FTVKNAQVRGGYVLHIGTIYGNLKVGDQVRLFIDEPRRPPVMSNHTATHILNFAALRSVLGEADQKGLVA
 PDRLRFDF TAKGAMSTQIQKAAEIVNGMIEAAKPVYTQDCPLAAAKAIQGLRAVFDETYDPVVRVVISIG
 VPVSELDDPCGPAGSLTSVEFCGGTHLRNSSHAGAFVIIVTEEAIAKGI RRIVAVTGAEAQKALRKSETL
 KKSLSAMEAKVKAQTAPNKDVQREIADLGEALATAVIPQWQKDEQRETLKSLKKVMDDLDRASKADVQKR
 VLEKTKQLIDSNPQPLVILEMESGASAKALNEALKLFTKTHSPQTSAMLFVTDNEAGKITCLCQVPQNA
 NRGLKASEWVQVSGLMDGKGGKDMAQATGKNVGLQEALQLATSFAQLRLGDVKN

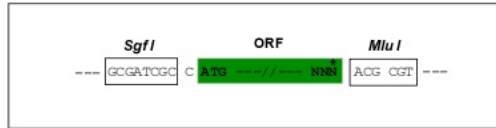
TRTRPLE – GFP Tag – V

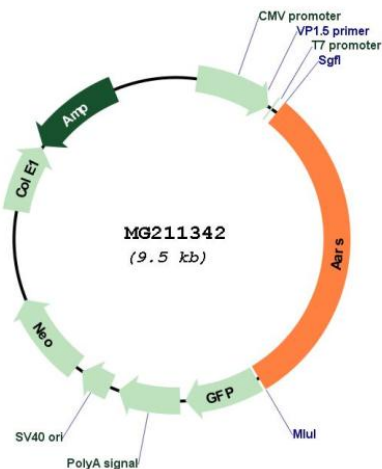
Restriction Sites:

SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:


ACCN: BC033273

ORF Size: 2906 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: [BC033273](#), [AAH33273](#)

RefSeq Size: 4891 bp

RefSeq ORF: 2906 bp

Locus ID: 234734

Cytogenetics: 8 E1

Gene Summary:

Catalyzes the attachment of alanine to tRNA(Ala) in a two-step reaction: alanine is first activated by ATP to form Ala-AMP and then transferred to the acceptor end of tRNA(Ala) (PubMed:16906134, PubMed:20010690, PubMed:25422440, PubMed:27622773). Also edits incorrectly charged tRNA(Ala) via its editing domain (PubMed:16906134, PubMed:20010690, PubMed:25422440, PubMed:29769718).[UniProtKB/Swiss-Prot Function]