

Product datasheet for **MG209351**

Qars (BC023023) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Qars (BC023023) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Qars
Synonyms:	1110018N24Rik; 1200016L19Rik; C80286; GLNRS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG209351 representing BC023023
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGACTGAGGTGCTTACCTTTTGGGGCCCAAGATGGAAGCTGATCTGGTGAAGAAGCCCAAGGTGGCAA
 AGGCACGGCTGGAAGAAACAGACCGGAAGACAGCAAAAGATGTGGTGGAGAAAGGTGAAGTGGCTGGCCA
 GACCTGTCTCTGATGGAGCAGCTCCGGGGGAGGCACCTTAAGTTTCATAAGCCAGGTGAGAACAACAAG
 ACGCCAGGCTATGTGATCACTCCATATACCATGGATCTGCTGAAGCAGCACCTGGAGATCACTGGGGGAC
 AGGTACGTACGCGGTTCCCTCCAGAGCCCAATGGAATCCTGCATATTGGACACGCCAAAGCCATCAATTT
 CAACTTTGGTTATGCCAAGGCCAACAATGGTATCTGTTTTCTGCGCTTTGATGACACCAACCCTGAGAAA
 GAAGAAGCAAAATTTCTCACTGCTATTTATGACATGGTGCCTGGCTGGTTATACACCTTACAAAGTGA
 CATATGCTTCTGACTATTTTACCAGCTGTATGCCTGGCCGTGGAACCTATCCATGGGGGTCTTGCTTA
 TGTGTGTACCAGAGAGTGAAGAGCTCAAAGGCCATAACCCCTTACCTTCTCCATGGAGGGACAGGCCCT
 AAGGAAGAATCATTGCTGCTCTTTGAGGCAATGCGCAAGGGCAAATTTGCAAGAAGGAGAGGCCACACTTC
 GAATGAAGTTGGTGTGGAAGATGGCAAGATGGACCCCGTGGCCTATCGAGTCAAGTACACGCCACACCA
 TCGCACAGGGGACAAATGGTGCATCTACCCACCTATGACTACACACATTGTCTGTGTGACTCCATTGAG
 CACATTACCCACTCGTTGTGTACCAAGGAGTCCAGGCTCGACGGTCTTCTACTTTTGGTTATGTAACG
 CTCTGAAAGTCTATTGCTCTGTTAGTGGGAATATGGTCGCCTCAATTTGCACTATGCTGTTGTCTCAA
 GCGCAAGATTCTCCAGCTGTAGCAGCTGGTGTGTTCCGGACTGGGACGATCCACGGCTCTTACACTC
 ACTGCCCTACGACGACGGGTTTTCCACCAGAGGCTATCAACAACCTTCTGTGCTCGGTTGGGGTACACG
 TGGCACAGACCACAATGGAACCTCATCTTCTGGAAGCCTGTGTGCGTGATGTGCTGAATGATGACGCCCC
 ACGTGCCATGGCTGTTCTAGAGCCACTACAAGTTGTCATACCAACTTTCTGCTCCCAAGCCCTTGGAC
 ATCCGAGTGCCAAATTTCCAGCTGATGAGACCAAGGTTTTCCACCAGGTTCTTTTCTTCCACTGTCT
 TCATTGAGAGAAGCGACTTTAAGGAGGAGTCAGAACAGGCTATAAGCGCCTAGCTTCGGGCCAGCCTGT
 GGGCCTGAGACACACTGGTTATGTCAATGAACTGCAGAAATATTGTGAGGGCTCCAGTGGCTGTGTGGAA
 CGCTTGGAGGTGACCTGTAGACGAGCTGATGCTGGAGAGAAGCCCAAGGCCTTTATTCACTGGGTATCAC
 AGCCTTTGGTGTGTGAGATTGCGCTCTATGAGTGCCTATCCAGCACAAGAACCCCAAGACCCTGTTGA
 AGTGCCTGGTGGATTCTAAGTGACCTGAACCCGGCGTCACTACAAGTGGTAGAAGGAGCATTAGTGGAC
 TGCTCTGTGGCTTTGGCAAAGCCCTTTGACAAGTTCAGTTTGGCGCCTTGGGTTACTTCTGTGGATC
 CAGACAGCCATCAAGGACAGATTGTCTCAACCGAACTGTCACACTAAAAGAAGCCAGGCCAAAATA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG209351 representing BC023023
 Red=Cloning site Green=Tags(s)

MTEVLHLLGPKMEADLVKPKVAKARLEETDRKTAKDVEKGEVAGQTLSLMEQLRGEALKFHKPGENYK
 TPGYVITPYTMDLLKQHLEITGGQVRFRFPPEPNGILHIGHAKAINFNFGYAKANNIGICFLRFDNPEK
 EEAKFFTAIYDMVTWLGYPYKVTYASDYFDQLYAWAVELIHGGLAYVCHQRVEELKGNPLPSPWRDRP
 KEESLLLFEAMRKGKFAEGEATLRMKLVMEDGKMDPVAYRVKYTPHRTGDKWCIYPTYDYTHCLDSIE
 HITHSLCTKEFQARRSSYFWLNCNALKVYCPVQWEYGRNLNHYAVVSKRKILQLVAAGAVRDWDDPRLFTL
 TALRRRGFPPEAINNFCARVGVTVAAQTMEPHLLEACVRDVLNDAAPRAMAVLEPLQVVIITNFPAPKPLD
 IRVFNFPADETKGFHQVFPFASTVFIERSDFKEESEPGYKRLASQPVGLRHTGYVIELQNIYRGSSGCV
 RLEVTCCRADAGEKPKAFIHVWSQPLVCEIRLYECLFQHKNPEDPVEVPGGFLSDLNPASLQVVEGALVD
 CSVALAKPFDKQFERLGYFSVDPDSHQQIVFNRTVTLKEDPGKI

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: BC023023

ORF Size: 1820 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: [BC023023](#), [AAH23023](#)

RefSeq Size: 2165 bp

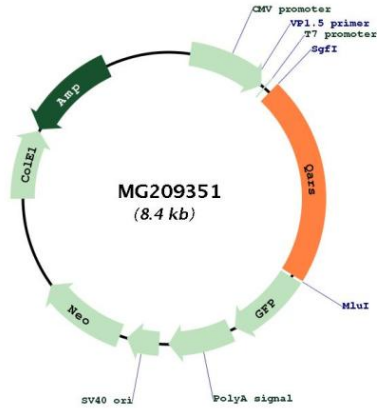
RefSeq ORF: 1820 bp

Locus ID: 97541

Cytogenetics: 9 F2

Gene Summary: Glutamine--tRNA ligase. Plays a critical role in brain development.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG209351