

Product datasheet for **MR210578**

Qars (NM_133794) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Qars (NM_133794) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Qars
Synonyms:	1110018N24Rik; 1200016L19Rik; C80286; GLNRS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR210578 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCTACTCCAGATTTCGCTAGCGCTGTTACCCGGCCTTGGCCTTAGCGAGAACAAGCCCGCAGACGC
 TCAAGAACGAGGCTCTGAGCACTCAGCTGCGCAGGCGGCCGACCCAGGCACACCAGATTCTGGGTTCTAC
 CATCGACAAGGCTACTGGGGTCTCCTATATGACTTGGTCTCCCGACTCAGGGATACTCGCGCTCGTTCT
 TTCCTTGTGAGCTATATAGCCAATAAGAAGATTACACGGGACTCCAGCTGAGCGCTGCTTTGAATATG
 TTCGGAGTCATCCCAGGATCCCATTGATACCAAGGACTTCGAGCAGGAGTGTGGCGTGGTGTGGTGGT
 GACACCGGAGCAGATTGAGGAAGCTGTGGAGTCCACCATAAATAAGCATCAGTTGCAGCTCTAGCGGAA
 CGGTACCGTTTCAACATGGGGCTGCTAATGGGAGAGGCTCGGGCTGCGCTCAGATGGGCAGACGGCAAAA
 TGATCAAGAACGAGGTGGATATGCAGGTCTTCACCTTTGGGGCCAAGATGGAAGCTGATCTGGTGAA
 GAAGCCAAGGTGGCAAAGGCACGGCTGGAAGAAACAGACCGGAAGACAGCAAAAGATGTGGTGGAGAAA
 GGTGAAGTGGCTGGCCAGACCCTGTCTCTGATGGAGCAGCTCCGGGGGGAGGCACCTAAGTTTCATAAGC
 CAGGTGAGAACTACAAGACGCCAGGCTATGTGATCACTCCATATACCATGGATCTGCTGAAGCAGCACCT
 GGAGATCACTGGGGGACAGGTACGTACGCGGTTCCCTCCAGAGCCCAATGGAATCCTGCATATTGGACAC
 GCCAAAGCCATCAATTTCAACTTTGGTTATGCCAAGGCCAACAATGGTATCTGTTTTCTGCGCTTTGATG
 ACACCAACCCTGAGAAAGAAGAAGCAAAATTTCTCACTGCTATTTATGACATGGTGACCTGGCTGGGTTA
 TACACCTTACAAAGTGACATATGCTTCTGACTATTTTGACCAGCTGTATGCCTGGGCCGTGGAACATC
 CATGGGGTCTTGCTTATGTGTGTCCACAGAGAGTGAAGAGCTCAAAGGCCATAACCCCTTACCTTCTC
 CATGGAGGGACAGGCCTAAGGAAGAATCATTGCTGCTCTTTGAGGCAATGCGCAAGGGCAAATTTGCAGA
 AGGAGAGGCCACACTTCGAATGAAGTTGGTGTGGAAGATGGCAAGATGGACCCCGTGGCCTATCGAGTC
 AAGTACACGCCACACCATCGCACAGGGGACAAATGGTGCATCTACCCACCTATGACTACACACATTGTC
 TGTGTGACTCCATTGAGCACATTACCCACTCGTTGTGTACCAAGGAGTTCAGGCTCGACGGTCTTCCTA
 CTTTTGGTTATGTAACGCTCTGAAAGTCTATTGTCCTGTTCAAGTGGGAATATGGTCGCCTCAATTTGCAC
 TATGCTGTTGTCTCAAAGCGCAAGATTCTCCAGCTTGTAGCAGCTGGTGTGTTCCGGGACTGGGACGATC
 CACGGCTCTTCACTCACTGCCCTACGACGACGGGTTTTCCACCAGAGGCTATCAACAACCTTCTGTGC
 TCGGGTTGGGGTACAGTGGCACAGACCACAATGGAACCTCATCTTCTGGAAGCCTGTGTGCGTGATGTG
 CTGAATGATGCAGCCCCACGTGCCATGGCTGTTCTAGAGCCACTACAAGTTGTCATCACCACCTTCTCTG
 CTCCCAAGCCCTTGGACATCCGAGTGCCAAATTTCCAGCTGATGAGACCAAGGGTTTTCCACCAGGTTCC
 TTTTGCTTCCACTGTCTTCATTGAGAGAAGCGACTTTAAGGAGGAGTCAGAACCAGGCTATAAGCGCCTA
 GCTTCGGGCCAGCCTGTGGGCTGAGACACACTGGTTATGTCAATTGAACTGCAGAATATTGTGAGGGCT
 CCAGTGGCTGTGTGGAACGCTTGGAGGTGACCTGTAGACGAGCTGATGCTGGAGAGAAGCCCAAGGCCTT
 TATCACTGGGTATCACAGCCTTTGGTGTGTGAGATTGCGCTCTATGAGTGCCTATTCCAGCACAAGAAC
 CCCGAAGACCCTGTTGAAGTGCCTGGTGGATTCCCTAAGTACCTGAACCCGGCGTCACTACAAGTGGTAG
 AAGGAGCATTAGTGGACTGCTCTGTGGCTTTGGCAAAGCCCTTTGACAAGTTCCAGTTTGAAGCCCTTGG
 GTACTTCTGTGGATCCAGACGCCATCAAGGACAGATTGTCTTCAACCGAACTGTCACACTAAAAGAA
 GACCCAGGCAAAATA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR210578 protein sequence
 Red=Cloning site Green=Tags(s)

MATPDSLALFTGLGLSENKARETLKNEALSTQLREAATQAHQILGSTIDKATGVLLYDLVSRLRDRRRS
 FLVSYIANKKIHTGLQLSAALEYVRSHQDPIDTKDFEQECGVVVVTPEQIEEAVESTINKHQLQLLAE
 RYRFNMGLLMGEARAALRWADGKMIKNEVDMQVLHLLGPKMEADLVKKPKVAKARLEETDRKTAKDVVEK
 GEVAGQTLSLMEQLRGEALKFHKPGENYKTPGYVITPYTMDLLKQHLEITGGQVTRFPPEPNGILHIGH
 AKAINFNFGYAKANNGICFLRFDDTNPEKEEAKFFTAIYDMVTWLGYPYKVTYASDYFDQLYAWAVELI
 HGLLAYVCHQRVEELKGHNPLPSPWRDRPKEESLLLFEAMRKGKFAEGEATLRMKLVMEDGKMDPVAYRV
 KYTPHRTGDKWCYPTYDYTHCLCDSIEHITHSLCTKEFQARRSSYFWLCNALKVYCPVQWEYGRNLH
 YAVVSKRKILQLVAAGAVRDWDDPRLFTLTALRRRGFPPEAINNFCARVGVTVAQTTMEPHLLEACVRDV
 LNDAAPRAMAVLEPLQVITNFPAPKPLDIRVFNPADETKGFHQVFASTVFIERSDFKEESEPGYKRL
 ASGQPVGLRHTGYVIELQNIVRGSSGCVRELEVTCCRADAGEKPKAFIHWVSQPLVCEIRLYECLFQHKH
 PEDPVEVPGGFLSDLNPASLQVVEGALVDCSVALAKPFDKQFERLGYFSVDPDSHQGQIVFNRTVTLKE
 DPGKI

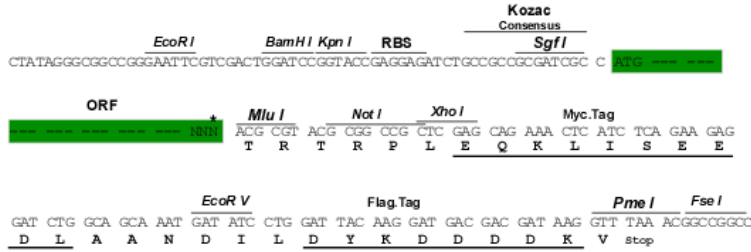
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:

Cloning sites used for ORF Shutting:



* The last codon before the Stop codon of the ORF

ACCN: NM_133794

ORF Size: 2328 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_133794.2](#)

RefSeq Size: 2501 bp

RefSeq ORF: 2328 bp

Locus ID: 97541

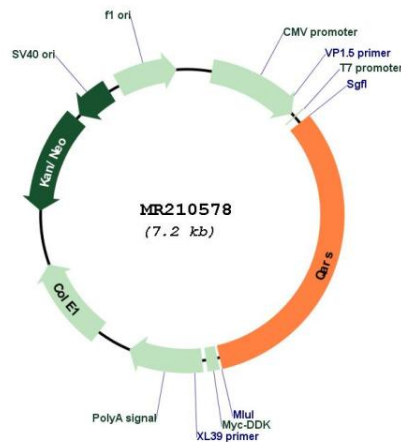
UniProt ID: [Q8BML9](#)

Cytogenetics: 9 F2

MW: 87.7 kDa

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

Product images:



Circular map for MR210578