

## Product datasheet for **SC320264**

### **QARS1 (NM\_005051) Human Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	QARS1 (NM_005051) Human Untagged Clone
Tag:	Tag Free
Symbol:	QARS1
Synonyms:	GLNRS; MSCCA; PRO2195; QARS
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene sequence for NM\_005051 edited  
 ATGGCGGCTCTAGACTCCCTGTCGCTCTTCACTAGCCTCGGCCTGAGCGAGCAGAAGGCC  
 CGCGAGACGCTCAAGAACTCGGCTCTGAGCGCGCAGCTGCGCGAGGCCGCTACTCAGGCT  
 CAGCAGACCCTGGGTTCCACCATTGACAAAAGCTACCGGGATCCTGTTATATGGCTTGGCC  
 TCCCGACTCAGGGATACCGGCGTCTCTCCTTCTTGAAGCTACATAGCCAGTAAGAAG  
 ATCCACACTGAGCCCCAGCTAAGCGCTGCCCTTGTAGTATGTGCGGAGTCAACCCCTGGAC  
 CCCATCGACACTGTGGACTTCGAGCGGGAATGTGGCGTGGGTGTCATTGTGACCCAGAG  
 CAGATTGAGGAGGCTGTGGAGGCTGCTATTAACAGGCACCGGCCCCAGCTCCTGGTGAA  
 CGTTACCATTTCAACATGGGGCTGCTGATGGGAGAGGCTCGGGCTGTGCTGAAGTGGGCA  
 GATGGCAAATGATCAAGAATGAAGTGGACATGCAGGTCCTCCACCTTCTGGGCCCAAG  
 TTGGAGGCTGATCTGGAGAAGAAGTTCAAGGTGGCAAAGCTCGGCTAGAAGAAACAGAC  
 CGGAGGACGGCAAAGGATGTGGTGGAGAATGGCGAGACTGCTGACCAGACCCTGTCTCTG  
 ATGGAGCAGCTCCGGGGGAGGCCCTTAAGTTCACAAGCCTGGTGAAGTACAAGACC  
 CCAGGCTATGTGGTCACTCCACACACCATGAATCTACTAAGCAGCACCTGGAGATTACT  
 GGTGGCAGGTACGTACCGGTTCCCGCCAGAACCAATGGAATCCTGCATATTGGACAT  
 GCCAAAGCCATCAATTTCAACTTTGGCTATGCCAAGGCCAAATGGCATCTGTTTTCTG  
 CGTTTTGATGACACCAACCCTGAGAAGGAGGAAGCAAAGTTCTTACGGCCATCTGTGAC  
 ATGGTAGCCTGGCTAGGCTACACACCTTACAAAGTACATATGCGTCTGACTATTTTGAC  
 CAGCTATATGCGTGGGCTGTGGAGCTCATCCGACGGGCTCGGCTATGTGTGCCACCAG  
 CGAGGAGAGGAGCTCAAAGGCCATAACTCTGCCTTACCCCTGGAGAGACCGTCCCATG  
 GAGGAGTCACTGCTGCTTTGAGGCAATGCGCAAGGGCAAGTTTTCAGAGGGCAGGCC  
 AACTACGGATGAAGCTGGTGTGGAGGATGGCAAGATGGACCCTGTAGCCTATCGAGTC  
 AAGTATACACCACACCACCGCACAGGGGACAAATGGTGCATCTATCCCACCTACGACTAC  
 ACACACTGCCTCTGTGACTCCATCGAGCACATCACTCACTCACTCTGCACCAAGGAATTC  
 CAGGCCCGACGCTCTTCTACTTCTGGCTTGAATGCACTGGACGCTATTGCCCTGTG  
 CAGTGGGAGTATGGCCGCTCAACCTGCACTATGCTGTTGTCTAAGAGGAAGATCCTC  
 CAGCTTGTAGCAACTGGTGTGTGCGGACTGGGATGACCCACGGCTCTTACACTCACG  
 GCCCTGCGACGGCGGGCTTCCACCTGAGGCCATCAACAACCTTGTGCCCGGGTGGGA  
 GTGACTGTGGCACAACCAATGGAGCCACATCTTCTAGAAGCCTGTGTGCGTGTG  
 CTGAATGACACAGCCCCACGAGCCATGGCTGTGCTGGAGTCACTACGGGTATCATCACC  
 AACTTTCTGCTGCCAAGTCTTGGACATCCAGGTGCCAACTTCCAGCTGATGAGACC  
 AAAGGCTTCCATCAGTTCCCTTTGCACCCATTGTCTTATTGAGAGGACTGACTTCAAG  
 GAGGAGCCAGAGCCAGGATTTAAGCGCCTGGCTTGGGGCCAGCCTGTGGGCTGAGGCAT  
 ACAGGCTACGTCAATTGAGCTGCAGCATGTTGTCAAGGGCCCCAGTGGTTGTGAGAGAGT  
 CTGGAGGTGACCTGCAGACGGGCAGATGCTGGAGAGAAGCCAAAGGCCTTTATTCAGTGG  
 GTGTACAGCCTTTGATGTGTGAGGTTCCGCTCTATGAGCGACTATTCCAGCACAAAGAC  
 CCTGAAGATCCTACTGAGGTGCCTGGTGGATTTTAAAGTACCTGAACCTGGCATCACTA  
 CAGTGGTGGATGCAGCATTAGTGGACTGCTCTGTGCCCTGGCAAACCTTCGACAAG  
 TTCCAGTTTGAGCGTCTTGATATTTCTCCGTGGATCCAGACAGCCATCAGGGAAAGCTT  
 GTCTTTAACCGAACTGTCACACTGAAGGAAGACCCAGGAAAGGTGTGA

**Restriction Sites:** BamHI-BglII

**ACCN:** NM\_005051

**Insert Size:** 2300 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).

<b>OTI Annotation:</b>	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_005051.1</a> , <a href="#">NP_005042.1</a>
<b>RefSeq Size:</b>	2437 bp
<b>RefSeq ORF:</b>	2328 bp
<b>Locus ID:</b>	5859
<b>UniProt ID:</b>	<a href="#">P47897</a>
<b>Cytogenetics:</b>	3p21.31
<b>Domains:</b>	tRNA-synt_1c, tRNA_synt_1c_R2, tRNA_synt_1c_R1
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Aminoacyl-tRNA biosynthesis, Metabolic pathways
<b>Gene Summary:</b>	<p>Aminoacyl-tRNA synthetases catalyze the aminoacylation of tRNA by their cognate amino acid. Because of their central role in linking amino acids with nucleotide triplets contained in tRNAs, aminoacyl-tRNA synthetases are thought to be among the first proteins that appeared in evolution. In metazoans, 9 aminoacyl-tRNA synthetases specific for glutamine (gln), glutamic acid (glu), and 7 other amino acids are associated within a multienzyme complex. Although present in eukaryotes, glutaminyl-tRNA synthetase (QARS) is absent from many prokaryotes, mitochondria, and chloroplasts, in which Gln-tRNA(Gln) is formed by transamidation of the misacylated Glu-tRNA(Gln). Glutaminyl-tRNA synthetase belongs to the class-I aminoacyl-tRNA synthetase family. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jan 2013]</p> <p>Transcript Variant: This variant (1) encodes the longest isoform (a).</p>