

## Product datasheet for MC210209

### Qtrt1 (NM\_021888) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Qtrt1 (NM_021888) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Qtrt1
Synonyms:	2610028E17Rik; Tgt
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
Fully Sequenced ORF:	>MC210209 representing NM_021888 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**GCGATCGCC**

ATGGCGGGGTAGGCAGCCAGGTTGCTTGGTCCGCTCCACGAATAATGCGGCTGGTCCGCTGAGTGCA  
GTCGCTCCGGAGCTCGGGCGGTGAGCTGCGGCTGCCGATGGAACGGTAGCCACCCCTGTGTTTCATGCC  
TGTGGGTACACAGGCCACCATGAAGGTATCACCACGGAGCAGCTGGACTCCCTGGGCTGCCGCATCTGC  
TTGGGCAACACCTACCATCTGGGGCTGAGGCCGGACCGAGCTGATCCGAAAGCCAGGGTCTTCACG  
GCTTCATGAATTGGCCCCACAATCTGCTGACGGATAGCGGCGGCTTCCAGATGGTGTCCCTCTTCTCCCT  
GTCCGAGGTGACGGAGGAGGGGCTCCACTTCCGCTCGCCCTACGATGGAGAAGAGACACTTTTGAGCCCA  
GAGAGGTGCGTGGAGATCCAGAAATGCTCTGGGCTCGGACATCATGCAGTTAGACCATGTGGTGAGCA  
GCACAGTGACAGGCCCTCTAGTGGAGGAGGCCATGCACAGGTGAGTCCGCTGGCTGGACAGATGCATCGC  
AGCCATAAAGCACCCGGACAAGCAGAACCTCTTTGCCATCATCCAGGGTGGACTGAATGCTGATCTTCGG  
ACCACTTGTCTGAAAGAGATGACCAAGAGAGATGTGCCGGCTTCGCCATCGGAGGTCTGAGTGGAGGAG  
AAAGCAAGGCACAGTTCTGGAAGATGGTGGCGTTGAGCACCTCCATGCCTAAGGACAAGCCACGATA  
CCTGATGGGGTTGGCTATGCCACCGATTTGGTGGTCTGCGTGGCTCTTGATGTGACATGTTCCGACTGT  
GTGTACCCACACGACAGCGCGCTTTGGATCCGCCCTTGTGCCACTGGGAACCTTCAGTTGAAGAAGA  
AGCAGTATGCCAAGGATTTAGCCCCATAAACCTGAGTGTCCCTGTCCACCTGCCAGACGCACAGCCG  
AGCCTTCTGCATGCCCTGCTACACAGTGACAACACTACAGCACTACACCACCTAACCGTGCACAACATT  
GCCTATCAGCTGCAGCTCCTGAGTGCCGTGCGCAGCAGTATCTTGAACAGCGCTTTCCTGACTTTGTAC  
GAAACTTCATGCGCACTATGTATGGTGACCACAGCCTCTGTCCTGCCTGGGCCGTTGAAGCACTGGCCTC  
TGTGGGAATCATGCTCACATGA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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<b>Restriction Sites:</b>	Sgfl-Mlul
<b>ACCN:</b>	NM_021888
<b>Insert Size:</b>	1212 bp
<b>OTI Disclaimer:</b>	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>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_021888.2</a> , <a href="#">NP_068688.2</a>
<b>RefSeq Size:</b>	1328 bp
<b>RefSeq ORF:</b>	1212 bp
<b>Locus ID:</b>	60507
<b>UniProt ID:</b>	<a href="#">Q9JMA2</a>
<b>Cytogenetics:</b>	9 A3
<b>Gene Summary:</b>	Catalytic subunit of the queuine tRNA-ribosyltransferase (TGT) that catalyzes the base-exchange of a guanine (G) residue with queuine (Q) at position 34 (anticodon wobble position) in tRNAs with GU(N) anticodons (tRNA-Asp, -Asn, -His and -Tyr), resulting in the hypermodified nucleoside queuosine (7-(((4,5-cis-dihydroxy-2-cyclopenten-1-yl)amino)methyl)-7-deazaguanosine) (PubMed:19414587, PubMed:29862811). Catalysis occurs through a double-displacement mechanism. The nucleophile active site attacks the C1' of nucleotide 34 to detach the guanine base from the RNA, forming a covalent enzyme-RNA intermediate. The proton acceptor active site deprotonates the incoming queuine, allowing a nucleophilic attack on the C1' of the ribose to form the product (By similarity).[UniProtKB/Swiss-Prot Function]