

Product datasheet for RC212190

QTRT1 (NM_031209) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	QTRT1 (NM_031209) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	QTRT1
Synonyms:	FP3235; TGT; TGUT
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC212190 representing NM_031209 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGGGAGCAGCTACCCAGGCTTCCCTGGAGTCGGCCCCACGGATCATGCGGCTGGTGGCCGAATGCA
GCCGCTCCAGGGCCCGGCAGGCGAGCTGTGGTGCCGCATGGGACAGTGGCCACTCCTGTGTTTCATGCC
AGTGGGCACGCAGGCCACCATGAAGGGCATCACGACCGAACAGCTGGACGCTCTGGGTTGCCGCATCTGC
CTGGGCAATACCTACCATCTGGGTCTAAGGCCGGACCCGAGCTGATCCAGAAAGCCAACGGTCTCCACG
GCTTCATGAATTGGCCTCATAATCTGCTAACGGACAGCGCGGTTTCCAGATGGTGTGCTGGTGTCTCT
GTCCGAGGTGACGGAGGAGGGCGTCCGCTTCCGCTCCCCCTACGACGGCAATGAGACCCTGCTGAGCCCG
GAGAAATCCGTGCAGATCCAGAATGCGCTGGGCTCGGACATCATCATGCAGCTGGACGACGTGGTTAGCA
GTACTGTGACTGGGCCACGTGTGGAGGAGGCCATGTACAGGTCAATCCGCTGGCTGGACCGGTGCATTGC
AGCCCATCAGCGGCCGACAAGCAGAACCTCTTCGCCATTATCCAGGGTGGGCTGGACGCAGATCTCCGG
GCCACCTGCCTTGAAGAGATGACCAAGCGAGACGTGCCTGGCTTCGCCATCGGGGGCCTGAGCGGGGGTG
AGAGCAAGTCGCAGTTCTGGCGGATGGTGGCGCTGAGCACCTCTCGGCTGCCAAGGACAAGCCCCGATA
TCTGATGGGGTGGCTATGCCACTGATCTGGTAGTCTGCGTGGCTCTTGGATGTGACATGTTGACTGC
GTCTTCCCACACGGACAGCGCGCTTTGGCTCTGCCCTGGTCCCCTGGAACCTGCGATTGAGGAAGA
AGGTGTTTGAGAAGGACTTCGGCCCATAGACCCGGAGTGACCTGCCCCACGTGCCAAAAGCACAGCCG
CGCCTTCTGCACGCACTGCTGCACAGTGACAACAGGCCGCGCTGCACCACTCACGGTCCACAACATC
GCCTACCAGTGCAGCTCATGAGCGCCGTCGCCACAGCATCGTGGAGAAGCGCTTCCCGGACTTCGTGC
GGGACTTCATGGGCGCCATGTACGGGATCCCACCCTCTGTCCCACCTGGGCCACTGACGCTCTGGCCTC
TGTGGGAATCACACTTGGC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC212190 representing NM_031209
Red=Cloning site Green=Tags(s)

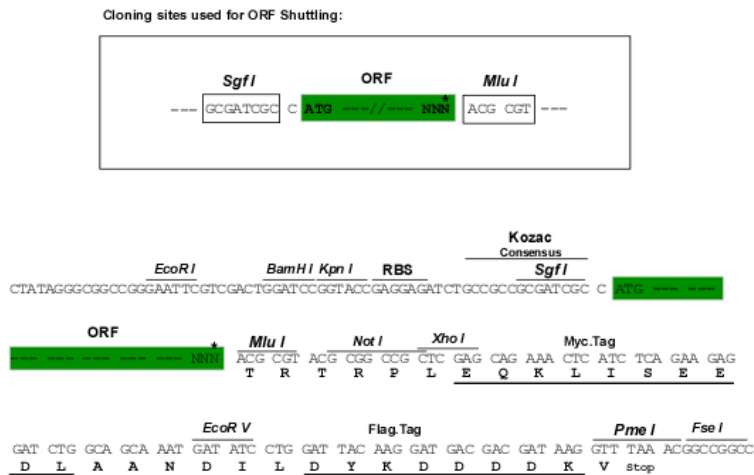
MAGAATQASLESAPRIMRLVAECSRSRARAGELWLPHGTVATPVFMPVGTQATMKGITTEQLDALGCRIC
 LGNTYHLGLRPGPELIQKANGLHGFMNWPHNLLTDSGGFQMVSLVSLSEVTEEGVRFSPYDGNETLLSP
 EKSVDIQLGSDIIMQLDDVVSSTVTGPRVEEAMYRSIRWLDRCIAAHQRPDKQNLFAIQGLDADLR
 ATCLEEMTKRDVPGFAIGGLSGGESKSKQFWRMVALSTSRLPKDKPRYLMGVGYATDLVVCVALGCDMFDC
 VFPTRTRARFGSALVPTGNLQLRKKVFEKDFGPIIDPECTCPTCQKHSRAFLHALLHSDNTAALHHLTVHNI
 AYQLQLMSAVRTSIVEKRFPDFVRDFMGAMYGDPTLCPTWATDALASVGITLG

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6501_a03.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

ACCN: NM_031209

ORF Size: 1209 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_031209.1](#), [NP_112486.1](#)

RefSeq Size: 1313 bp

RefSeq ORF: 1212 bp

Locus ID: 81890

UniProt ID: [Q9BXR0](#)

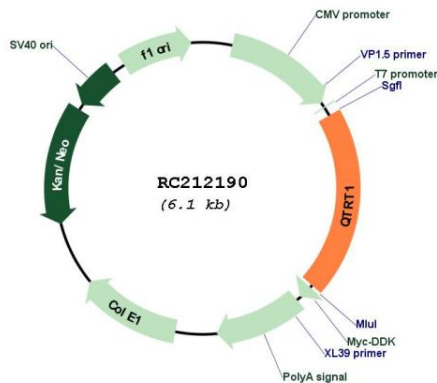
Cytogenetics: 19p13.2

Domains: TGT

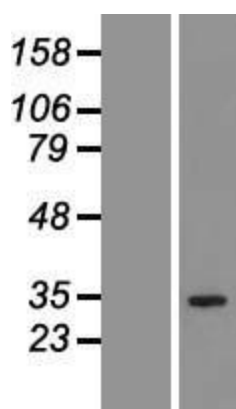
MW: 43.9 kDa

Gene Summary: This gene encodes the catalytic subunit of tRNA-guanine transglycosylase. tRNA-guanine transglycosylase is a heterodimeric enzyme complex that plays a critical role in tRNA modification by synthesizing the 7-deazaguanosine queuosine, which is found in tRNAs that code for asparagine, aspartic acid, histidine and tyrosine. A pseudogene of this gene is located on the long arm of chromosome X. [provided by RefSeq, Feb 2012]

Product images:



Circular map for RC212190



Western blot validation of overexpression lysate (Cat# [LY410589]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC212190 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).