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Product datasheet for MR215941L4V

Qtrt1 (NM_021888) Mouse Tagged ORF Clone Lentiviral Particle

Product data:

Product Type:	Lentiviral Particles
Product Name:	Qtrt1 (NM_021888) Mouse Tagged ORF Clone Lentiviral Particle
Symbol:	Qtrt1
Synonyms:	2610028E17Rik; Tgt
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-mGFP-P2A-Puro (PS100093)
Tag:	mGFP
ACCN:	NM_021888
ORF Size:	1209 bp
ORF Nucleotide Sequence:	`The ORF insert of this clone is exactly the same as(MR215941).`
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.
RefSeq:	NM_021888.2, NP_068688.2
RefSeq Size:	1328 bp
RefSeq ORF:	1212 bp
Locus ID:	60507
UniProt ID:	Q9JMA2
Cytogenetics:	9 A3

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Gene Summary: 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]