

Product datasheet for **RG224501**

CKMT2 (NM_001099735) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CKMT2 (NM_001099735) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	CKMT2
Synonyms:	SMTCK
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG224501 representing NM_001099735 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCCAGTATCTTTTCTAAGTTGCTAACTGGCCGCAATGCTTCTCTGCTGTTTGTACCATGGGCACCA
GTGTCCTGACCACCGGTACCTGCTGAACCGGCAGAAAGTGTGTGCCGAGGTCCGGGAGCAGCCTAGGCT
ATTTCTCCAAGCGCAGACTACCCAGACCTGCGCAAGCACAACAACCTGCATGGCCGAGTGCCTCACCC
GCCATTTATGCCAAGCTTCGCAACAAGGTGACACCAACGGCTACACGCTGGACCAGTGCATCCAGACTG
GAGTGGACAACCCTGGCCACCCCTTCATAAAGACTGTGGGCATGGTGGCTGGTGACGAGGAGTCCTATGA
GGTGTGTTGCTGACCTTTTGACCCCGTCATCAAACCTAAGACACAACGGCTATGACCCAGGGTGATGAAG
CACACAACGGATCTGGATGCATCAAAGATCACCAAGGGCAGTTCGACGAGCATTACGTGCTGTCTTCTC
GGGTGCGCACTGGCCGAGCATCCGTGGGCTGAGCCTGCCTCCAGCCTGCACCCGGGCCGAGCGAAGGGA
GGTAGAGAACGTGGCCATCACTGCCCTGGAGGGCTCAAGGGGGACCTGGCTGGCCGCTACTACAAGCTG
TCCGAGATGACGGAGCAGGACCAGCAGCGGCTCATCGATGACCACTTTCTGTTTGATAAGCCAGTGTCCC
CTTTATTAACATGTGCTGGATGGCCCGTACTGGCCAGATGCCAGGGGAATCTGGCATAATTATGATAA
GACATTTCTCATCTGGATAAATGAGGAGGATCACACCAGGGTAATCTCAATGGAAAAAGGAGGCAATATG
AAACGAGTATTTGAGCGATTCTGTCTGGACTAAAAGAAGTGAACGGTTAATCCAAGAAGGAGGCTGGG
AGTTCATGTGGAATGAGCGCTAGGATACATTTTGACCTGTCTTGAACCTTGGAAACAGGACTACGAGC
TGGTGTCCACGTTAGGATCCCAAAGCTCAGCAAGGACCCACGCTTTTCTAAGATCCTGAAAAACCTAAGA
CTCCAGAAGCGTGGCACAGGTGGTGTGGACACTGCCGCGTGCAGATGTGTACGACATTTCCAACATAG
ATAGAATTGGTCGATCAGAGGTTGAGCTTGTTCAGATAGTCATCGATGGAGTCAATTACCTGGTGGATTG
TGAAAAGAAGTTGGAGAGAGGCCAAGATTAAGGTGCCACCCCTCTGCCTCAGTTTGGCAAAAAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG224501 representing NM_001099735
Red=Cloning site Green=Tags(s)

MASIFSKLLTGRNASLLFATMGTSVLTTGYLLNRQKVCAEVREQPRLFPPSADYDPLRKHNMCMAECLTP
 AIYAKLRNKVTPNGYTLQDCIQTGVDNPGHPFIKTVGMVAGDEESYEYFADLFDPVIKLRHNGYDPRVMK
 HTTDL DASKITQGGFDEHYVLSRVRTGRSIRGLSLPPACTRAERREVENVAITALEGLKGDLAGRYYKL
 SEMTEQDQRLIDDFLFDKPVSPLLTCAGMARDWPDARGIWHNYDKTFLIWIINEEDHTRVISMKEKGGNM
 KRVFERFCRGLKEVERLIQERGWEFMWNERLGYILTCPSNLGTGLRAGVHVRIPKLSKDRPFSKILENLR
 LQKRGTGGVDTAAVADVYDISNIDRIGRSEVELVQIVIDGVNYLVDCEKRLERGQDIKVPPLPQFGKK

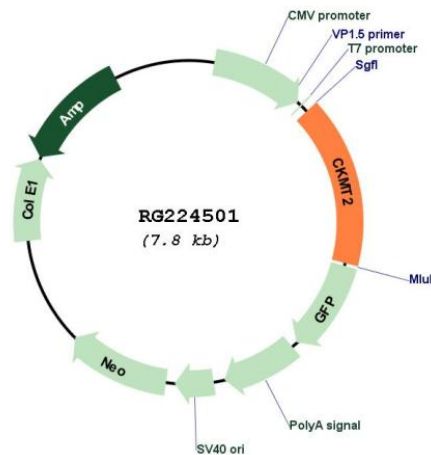
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001099735

ORF Size:	1257 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:	<ol style="list-style-type: none">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_001099735.2
RefSeq Size:	1486 bp
RefSeq ORF:	1260 bp
Locus ID:	1160
UniProt ID:	P17540
Cytogenetics:	5q14.1
Protein Families:	Druggable Genome
Protein Pathways:	Arginine and proline metabolism, Metabolic pathways
Gene Summary:	Mitochondrial creatine kinase (MtCK) is responsible for the transfer of high energy phosphate from mitochondria to the cytosolic carrier, creatine. It belongs to the creatine kinase isoenzyme family. It exists as two isoenzymes, sarcomeric MtCK and ubiquitous MtCK, encoded by separate genes. Mitochondrial creatine kinase occurs in two different oligomeric forms: dimers and octamers, in contrast to the exclusively dimeric cytosolic creatine kinase isoenzymes. Sarcomeric mitochondrial creatine kinase has 80% homology with the coding exons of ubiquitous mitochondrial creatine kinase. This gene contains sequences homologous to several motifs that are shared among some nuclear genes encoding mitochondrial proteins and thus may be essential for the coordinated activation of these genes during mitochondrial biogenesis. Three transcript variants encoding the same protein have been found for this gene. [provided by RefSeq, Jul 2008]