

## Product datasheet for RC216991

### CKMT2 (NM\_001099736) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	CKMT2 (NM_001099736) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CKMT2
Synonyms:	SMTCK
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC216991 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCCAGTATCTTTTCTAAGTTGCTAACTGGCCGCAATGCTTCTCTGCTGTTTGTACCATGGCCACCA  
GTGTCCTGACCACCGGTACCTGCTGAACCGGCAGAAAGTGTGTGCCGAGGTCCGGGAGCAGCCTAGGCT  
ATTTCTCCAAGCGCAGACTACCCAGACCTGCGCAAGCACAACAAGTGCATGGCCGAGTGCCTCACCC  
GCCATTTATGCCAAGCTTCGCAACAAGGTGACACCAACGGCTACACGCTGGACCAGTGCATCCAGACTG  
GAGTGGACAACCCTGGCCACCCCTTCATAAAGACTGTGGGCATGGTGGCTGGTGACGAGGAGTCCATGA  
GGTGTGTTGCTGACCTTTTGGACCCGTCATCAAATAAGACACAACGGCTATGACCCAGGGTGTGAAG  
CACACAACGGATCTGGATGCATCAAAGTACCCAAAGGGCAGTTCGACGAGCATTACGTGCTGTCTTCTC  
GGGTGCGCACTGGCCGAGCATCCGTGGGCTGAGCCTGCCTCCAGCCTGCACCCGGGCCGAGCGAAGGGA  
GGTAGAGAACGTGGCCATCACTGCCCTGGAGGGCTCAAGGGGGACCTGGCTGGCCGCTACTACAAGCTG  
TCCGAGATGACGGAGCAGGACCAGCAGCGGCTCATCGATGACCACTTTCTGTTTGATAAGCCAGTGTCC  
CTTTATTAACATGTGCTGGATGGCCCGTACTGGCCAGATGCCAGGGGAATCTGGCATAATTATGATAA  
GACATTTCTCATCTGGATAAATGAGGAGGATCACACCAGGTAATCTCAATGGAAAAAGGAGGCAATATG  
AAACGAGTATTTGAGCGATTCTGCTGGACTAAAAGAAGTGAACGGTTAATCCAAGAAGGAGGCTGGG  
AGTTCATGTGGAATGAGCGCTAGGATACATTTTACCTGTCTTGAACCTTGGAAACAGGACTACGAGC  
TGGTGTCCACGTTAGGATCCCAAAGCTCAGCAAGGACCCACGCTTTTCTAAGATCCTGAAAAACCTAAGA  
CTCCAGAAGCGTGGCACAGGTGGTGTGGACACTGCCGCGTGCAGATGTGTACGACATTTCCAACATAG  
ATAGAATTGGTCGATCAGAGTTGAGCTTGTTCAGATAGTCATCGATGGAGTCAATTACCTGGTGGATTG  
TGAAAAGAAGTTGGAGAGAGGCCAAGATATAAGGTGCCACCCCTCTGCCTCAGTTTGGCAAAAAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

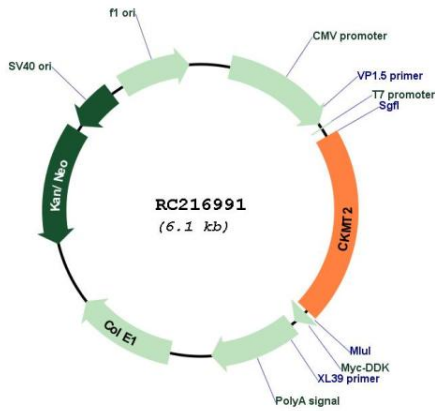


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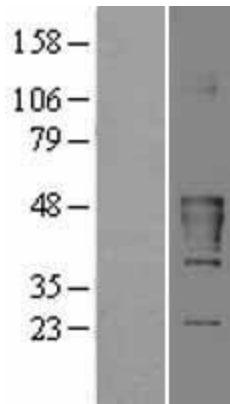


<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and 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_001099736.1</a> , <a href="#">NP_001093206.1</a>
<b>RefSeq Size:</b>	1490 bp
<b>RefSeq ORF:</b>	1260 bp
<b>Locus ID:</b>	1160
<b>UniProt ID:</b>	<a href="#">P17540</a>
<b>Cytogenetics:</b>	5q14.1
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Arginine and proline metabolism, Metabolic pathways
<b>MW:</b>	47.5 kDa
<b>Gene Summary:</b>	<p>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]</p>

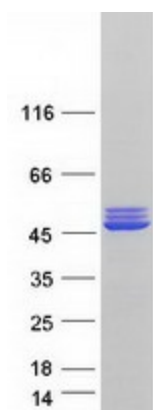
Product images:



Circular map for RC216991



Western blot validation of overexpression lysate (Cat# [LY420508]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC224501] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CKMT2 protein (Cat# [TP316991]). The protein was produced from HEK293T cells transfected with CKMT2 cDNA clone (Cat# RC216991) using MegaTran 2.0 (Cat# [TT210002]).