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Product datasheet for SC113062

CKMT1B (NM_020990) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CKMT1B (NM_020990) Human Untagged Clone
Tag:	Tag Free
Symbol:	CKMT1B
Synonyms:	CKMT; CKMT1; UMTCK
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_020990, the custom clone sequence may differ by one or more nucleotides

ATGGCTGGTCCCTTCTCCCGTCTGCTGTCCGCCCGCCCGGGACTCAGGCTCCTGGCTTTGGCCGGAGCGG
GGTCTCTAGCCGCTGGGTTTCTGCTCCGACCGGAACCTGTACGAGCTGCCAGTGAACGACGGAGGCTGTA
TCCCCCGAGCGCTGAGTACCCAGACCTCCGAAAGCACAACAACTGCATGGCCAGTCACCTGACCCCAGCA
GTCTATGCACGGCTCTGCGACAAGACCACACCCACTGGTTGGACGCTAGATCAGTGTATCCAGACTGGCG
TGGACAACCCTGGCCACCCCTTCATCAAGACTGTGGGCATGGTGGCTGGAGATGAGGAGACCTATGAGGT
ATTTGCTGACCTGTTTGACCCTGTGATCCAAGAGCGACACAATGGATATGACCCCCGGACAATGAAGCAC
ACCACGGATCTAGATGCCAGTAAAATCCGTTCTGGCTACTTTGATGAGAGGTATGTATTGTCCTCTAGAG
TCAGAACTGGCCGAAGCATCCGAGGACTCAGTCTGCCTCCAGCTTGCACTCGAGCAGAGCGACGAGAGGT
GGAACGTGTTGTGGTGGATGCACTGAGTGGCCTGAAGGGTGACCTGGCTGGACGTTACTATAGGCTCAGT
GAGATGACAGAGGCTGAACAGCAGCAGCTTATTGATGACCACTTTCTGTTTGATAAGCCTGTGTCCCCGT
TGCTGACTGCAGCAGGAATGGCTCGAGACTGGCCAGATGCTCGTGGAATTTGGCACAACAATGAGAAGAG
CTTCCTGATCTGGGTGAATGAGGAGGATCATACACGGGTGATCTCCATGGAGAAGGGTGGTAACATGAAG
AGAGTGTTTGAAAGATTCTGCCGAGGCCTCAAAGAGGTGGAGAGACTTATCCAAGAACGTGGCTGGGAGT
TCATGTGGAATGAGCGTTTGGGATACATCTTGACCTGTCCATCTAACCTGGGCACTGGACTTCGGGCAGG
AGTGCACATCAAACTGCCCCTGCTAAGCAAAGATAGCCGCTTCCCAAAGATCCTGGAGAACCTAAGACTC
CAAAAACGTGGTACTGGAGGAGTGGACACTGCTGCTACAGGCGGTGTCTTTGATATTTCTAATTTGGACC
GACTAGGCAAATCAGAGGTGGAGCTGGTGCAACTGGTCATCGATGGAGTAAACTATTTGATTGATTGTGA
ACGGCGTCTGGAGAGAGGCCAGGATATCCGCATCCCCACACCTGTCATCCACACCAAGCATTAA

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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_020990 unedited
TGTAATACGACTCACTATAGGGCGGCCGCGAATTCGGCACGAGGCTCCCATTCCGGCTCC
AGCCTCCAATCCGACCCCCATTTCGGCTGCAGCCTCGGACCTAGCTCCGGCCCTCGGTCT
ATCCGGTTGCATCCTCCCTCCCTGTTCCGGATCTTATCTTGCGCCAGCGCCTACTCCAGG
ATCCCGTAGCCAGACCTCAAGCCATGGCTGGTCCCTTCTCCCGTCTGCTGTCCGCCCGCC
CGGGACTCAGGCTCCTGGCTTTGGCCGGAGCGGGGTCTCTAGCCGCTGGGTTTCTGCTCC
GACCGGAACCTGTACGAGCTGCCAGTGAACGACGGAGGCTGTATCCCCCGAGCGCTGAGT
ACCCAGACCTCCGAAAGCACAACAACTGCATGGCCAGTCACCTGACCCCAGCAGTCTATG
CACGGCTCTGCGACAAGACCACACCCACTGGTTGGACGCTAGATCAGTGTATCCAGACTG
GCGTGGACAACCCTGGCCACCCCTTCATCAAGACTGTGGGCATGGTGGCTGGAGATGAGG
AGACCTATGAGGTATTTGCTGACCTGTTTGACCCTGTGATCCAAGAGCGACACAATGGAT
ATGACCCCCGGACAATGAAGCACACCACGGATCTAGATGCCAGTAAAATCCGTTCTGGCT
ACTTTGATGAGAGGTATGTATTGTCCTCTAGAGTCAGAACTGGCCGAAGCATCCGAGGAC
TCAGTCTGCCTCCAGCTTGCACTCGAGCAGAGCGACGAGAGGTGGAACGTGTTGTGGNTG
ATGCACTGAGTGGCCTGAAGGGTGACCTGGCTGGNACGTACTATAGGCTCAGTGAGATGA
CAGAGGGCTGACAGCAGCAGCTTATTGATGACCACTNTCTNTNGATAAGCCTGTGTNCCC
CGTGCTG

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_020990 unedited
CTATGGACCCGCGGCCGCAATCTANAGTCGAGTTTTTTTTTTTTTTTTTTTTTTTTTTT
TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTCAACCAAAACAGGGGGTTT
TTACTAGGATGGGGGCAGGGAATGCGGGGCCAGGCCCAAACCAAGAAAAAGGGCCCTTTT
TTAAAAGGACCAAACCCCCGGGAAATTTTGAGCCATCACCTGGCAAGGGGGATTAAATGC
TTGGGGGGGAAAACAGGGGGGGGAATGCGAATTTCCGGGCCTTTTTCCAAACCCCGTTAA
AAATAAATAAAATAGTTAACTCCTTGGAGGACCAGTTGCCCCACCCCCCCCTTTGATTTG
CCTAGCCGGCCCAAATTAAAAATATAAAAAACCCCCCCTGTACAAAAAGGGCCCACTCCT
CCAAACCCACTTTTTGGGAGTTTAAGGTTCCCCAGAATTTTTGGAAAACGGTTTTTTTTT
TTTACCAGGGGCATTTTGATGGCCCCTCCTGCCCAAATCCCAGGGCCCAGGTTAAAGGGA
CAGGGAAAAATGTATCCCAAACGCTATTTCCAAATGAACTCCCCACCCCGTTCTTGGAAA
AGTCTTTCCCACCTCTTGGGGCCCCCGCAGAATTTTTAAAACTCTCTTTTAATGGTACCC
CCCCTTTTCATGGGAAAACACCGGGTATTGACCCTCCTAATTCCCCCAAAACAGGAAGTT
TTTTTAATTGTGTGGCCAAATTCCACGACCATGTGGCCAGTCTTAGACCCATTCTGGTGG
AATAAGCACCGGGAACCCAGTTTTAACAAACAAAAGGGGCCATAAAAGACTGGTGGTGTA
AACCCTGTTTTTCCCTGGGCCTTAAGAAACGGCCAGCCGGGCCCCTTTTAGGCCATTAGG
GGATCACCCCACACAGTCCCCCTTTTTNCCTTTGTTAAAGAGGAAAGGGGGCAAACTGAT

Restriction Sites: NotI-NotI

ACCN: NM_020990

Insert Size: 1460 bp

OTI Disclaimer: 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).

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_020990.3, NP_066270.1
RefSeq Size:	1779 bp
RefSeq ORF:	1254 bp
Locus ID:	1159
UniProt ID:	P12532
Cytogenetics:	15q15.3
Domains:	ATP-gua_Ptrans
Protein Families:	Druggable Genome
Protein Pathways:	Arginine and proline metabolism, Metabolic pathways
Gene Summary:	Mitochondrial creatine (MtCK) kinase 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. Many malignant cancers with poor prognosis have shown overexpression of ubiquitous mitochondrial creatine kinase; this may be related to high energy turnover and failure to eliminate cancer cells via apoptosis. Ubiquitous mitochondrial creatine kinase has 80% homology with the coding exons of sarcomeric mitochondrial creatine kinase. Two genes located near each other on chromosome 15 have been identified which encode identical mitochondrial creatine kinase proteins. [provided by RefSeq, Jul 2008]