

Recombinant Human CKMT2 Protein, Myc/DDK-tagged, C13 and N15-labeled

Cat. No. CKMT2-2979H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	CKMT2 MS Standard C13 and N15-labeled recombinant protein (NP_001093205) with a C-terminal MYC/DDK tag, was expressed in HEK293 cells.
Species	Human
Source	HEK293
Description	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.
Molecular Mass	47.5 kDa
AA Sequence	MASIFSKLLTGRNASLLFATMGTSVLTTGYLLNRQKVCAEVREQPRLFPSPADYPDL

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RKHNNCMAECLTPAIYAKLRNKVTPNGYTLDDQCIQTGVDNPGHPFIKTVGMVAGDE
 ESYEVFADLFDPVIKLRHNGYDPRVMKHTTDL DASKITQGQFDEHYVLSSRVRTGRS
 IRGLSLPPACTRAERREVENVAITALEGLKGDLAGRYYYKLSEMTEQDQQLIDDHFLF
 DKPVSPLLTCAGMARDWPDARGIWHNYDKTFLIWINEEDHTRVISMEEKGGNMKRVF
 ERFCRGLKEVERLIQERGWEFMWNERLGYILT CPSNLGTGLRAGVHVRI PKLSKDP
 RFSKILENLRLQKRGTTGGVDTAAVADVYDISNIDRIGRSEVELVQIVIDGVNYLVDCEK
 KLERGQDIKVPPLPQFGKTRTRPLEQKLISEEDLAANDILDYKDDDDKV

Purity > 80% as determined by SDS-PAGE and Coomassie blue staining

Stability Stable for 3 months from receipt of products under proper storage and handling conditions.

Storage Store at -80 centigrade. Avoid repeated freeze-thaw cycles.

Concentration 50 µg/mL as determined by BCA

Storage Buffer 100 mM glycine, 25 mM Tris-HCl, pH 7.3.

GENE INFORMATION

Gene Name CKMT2 creatine kinase, mitochondrial 2 [Homo sapiens (human)]

Official Symbol CKMT2

Synonyms CKMT2; creatine kinase, mitochondrial 2 (sarcomeric); creatine kinase S-type, mitochondrial; SMTCK; S-MtCK; mib-CK; basic-type mitochondrial creatine kinase; sarcomeric mitochondrial creatine kinase;

Gene ID 1160

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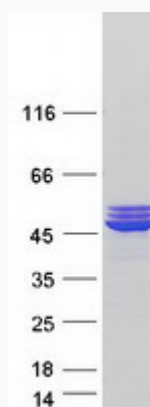
mRNA Refseq [NM_001099735](#)

Protein Refseq [NP_001093205](#)

MIM [123295](#)

UniProt ID [P17540](#)

SDS-PAGE



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