

Recombinant Human Creatine Kinase, Mitochondrial 1A, His-tagged

Cat. No. CKMT1A-1341H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human CKMT1A protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.
Species	Human
Source	E.coli
ProteinLength	40-417aa
Description	CKMT1A 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.
Form	Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 0.15M NaCl, 10% glycerol.
Molecular Mass	45 kDa (403aa) confirmed by MALDI-TOF
AA Sequence	MGSSHHHHHH SSGLVPRGSH MGSHTMASERR RLYPPSAEYP DLRKHNNCMA SHLTPAVYAR LCDKTTPTGW TLDQCIQTGV DNP GHPFIKT VGMVAGDEET YEVFADLFDP VIQERHNGYD PRTMKHTTDL DASKIRSGYF DERYVLSSRV RTGRSIRGLS LPPACTRAER REVERVVVDA LSGLKGDLAG RYYRLSEMTE AEQQQLIDDH FLFDKPV SPL LTAAGMARDW PDARGIWHNN EKSFLI WVNE EDHTRVISME KGGNMKRVFE RFCRGLKEVE RLIQERGWEF MWNERLG YIL

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TCPSNLGTGL RAGVHIKLPL LSKDSRFPKI LENLRLQKRG TGGVDTAATG
GVFDISNLDR LGKSEVELVQ LVIDGVNYLI DCERRLERGQ DIRIPTVVIH TKH

Purity >95% by SDS - PAGE

Applications SDS-PAGE

Storage Can be stored at 4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

Concentration 1 mg/ml (determined by Bradford assay)

GENE INFORMATION

Gene Name CKMT1A creatine kinase, mitochondrial 1A [Homo sapiens]

Official Symbol CKMT1A

Synonyms CKMT1A; creatine kinase, mitochondrial 1A; CKMT1, creatine kinase, mitochondrial 1 (ubiquitous); creatine kinase U-type, mitochondrial; U-MtCK; mia-CK; ubiquitous mitochondrial creatine kinase; acidic-type mitochondrial creatine kinase; creatine kinase, mitochondrial 1 (ubiquitous); CKMT1; UMTCK; CKMT1B; FLJ50967;

Gene ID 548596

mRNA Refseq NM_001015001

Protein Refseq NP_001015001

MIM 613415

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UniProt ID	P12532
Chromosome Location	15q15
Pathway	Arginine and proline metabolism, organism-specific biosystem; Arginine and proline metabolism, conserved biosystem; Creatine metabolism, organism-specific biosystem; Creatine pathway, organism-specific biosystem; Creatine pathway, conserved biosystem; Metabolic pathways, organism-specific biosystem; Metabolism, organism-specific biosystem;
Function	ATP binding; creatine kinase activity; nucleotide binding;

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