

Recombinant Full Length Human CKMT1A Protein

Cat. No. CKMT1A-85HF **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant full length Human CKMT1B with N terminal proprietary tag; Predicted MWt 71.94 kDa.
Species	Human
Source	In Vitro Cell Free System
ProteinLength	417 amino acids
Description	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.
Form	Liquid
Molecular Mass	71.940kDa inclusive of tags

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AA Sequence

MAGPFSRLLSARPGRLRLLAGAGSLAAGFLLRPEPVRAA SERRRLYPPSAEYPDL
 RKHNNCMASHLTPAVYARLCDKTT PTGWTL DQCIQTGVDPNPGHPFIKTVGMVAGD
 EETYEVFAD LFDPVIQERHNGYDPRTMKHTTDL DASKIRSGYFDERYVL SSRVRTG
 RSIRGLSLPPACTRAERREVERVVVDALSGLK G DLAGRYRLSEMTEAEQQQLIDD
 HFLFDKPVSPLLTAAGM ARDWPDARGIWHNNEKSFLIWWNEEDHTRVISMKEGGN
 MK RVFERFCRGLKEVERLIQERGWEFMWNERLG YILTCPSNL GTGLRAGVHIKLPL
 LSKDSRFPKILENLRLQKRG TGGVDT AATGGVFDISNLDRLGKSEVELVQLVIDGVN
 YLIDCERRL ERGQDIRIPTPVIHTKH

Purity

Proprietary Purification

Storage

Shipped on dry ice. Upon delivery aliquot and store at -80 centigrade. Avoid freeze / thaw cycles.

Storage Buffer

pH: 8.00. Constituents: 0.79% Tris HCl, 0.31% Glutathione.

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

Gene ID

[548596](#)

mRNA Refseq

[NM_001015001](#)

Protein Refseq

[NP_001015001](#)

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MIM	613415
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UniProt ID	P12532
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