

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 PTGWTLDDQCIQTGVDNPGHPFIKTVGMVAGD EETYEVFAD LFDPVIQERHNGYDPRTMKHTTDL DASKIRSGYFDERYVL SSRVRTG RSIRGLSLPPACTRAERREVERVVVDALSGLK G DLAGRYRLSEMTEAEQQQLIDD HFLFDKPVSPLLTAAGM ARDWPDARGIWHNNEKSFLIWWNEEDHTRVISMKEGGN MK RVFERFCRGLKEVERLIQERGWEFMWNERLG YILTCPSNL GTGLRAGVHIKLPL LSKDSRFPKILENLRLQKRGTTGGVDT 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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