

# Recombinant human CKMT2 protein

Catalog Number: ATGP1599

## PRODUCT INFORMATION

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### Expression system

E.coli

### Domain

40-419aa

### UniProt No.

P17540

### NCBI Accession No.

NP\_001093205

### Alternative Names

Creatine kinase S-type mitochondrial, Creatine kinase S-type, mitochondrial, SMTCK

## PRODUCT SPECIFICATION

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### Molecular Weight

46.1 kDa (405aa) confirmed by MALDI-TOF

### Concentration

1mg/ml (determined by Bradford assay)

### Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 10% glycerol, 1mM DTT, 100mM NaCl

### Purity

> 90% by SDS-PAGE

### Tag

His-Tag

### Application

SDS-PAGE

### Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

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### Description

CKMT2, as known as SMTCK, belongs to the ATP:guanido phosphotransferase family. SMTCK is responsible for the transfer of high energy phosphate from mitochondria to the cytosolic carrier, creatine. This enzyme is reversibly catalyzes the transfer of phosphate between ATP and various phosphogens (e. g. creatine phosphate). Creatine kinase isoenzymes play a central role in energy transduction in tissues with large, fluctuating energy demands, such as skeletal muscle, heart, brain and spermatozoa. Recombinant human CKMT2 protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.

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## Amino acid Sequence

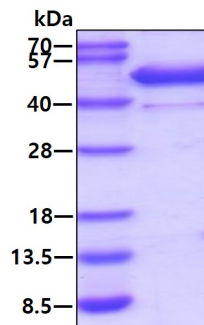
<MGSSHHHHHH SSGLVPRGSH MGSHM>EVREQ PRLFPPSADY PDLRKHNNCM AECLTPAIYA KLRNKVTPNG  
YTLDQCIQTG VDNPGHPFIK TVGMVAGDEE SYEVFADLFD PVIKLRHNGY DPRVMKHTTD LDASKITQGQ FDEHYVLSSR  
VRTGRSIRGL SLPPACTRAE RREVENVAIT ALEGLKGDLA GRYYKLSEMT EQDQQLIDD HFLFDKPVSP LLTCAGMARD  
WPDARGIWHN YDKTFLIWIN EEDHTRVISM EKGGNMKRVF ERFCRGLKEV ERLIQERGWE FMWNERLGVI LTCPSNLGTG  
LRAGVHVRIP KLSKDPRFSK ILENLRLQKR GTGGVDTAAV ADVYDISNID RIGRSEVELV QIVIDGVNYL VDCEKKLERG  
QDIKVPPLP QFGKK

## General References

Payne RM, et al. (1995) Mol. Cell. Biochem. 133-134: 235-43.  
Qin W, Khuchua Z, et al. (1998) Mol. Cell. Biochem. 184 (1-2): 153-67.

## DATA

### SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.