

Recombinant Human CKMT2, GST-tagged

Cat. No. CKMT2-11267H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human CKMT2 protein, fused to GST-tag, was expressed in E.coli and purified by GSH-sepharose.
Species	Human
Source	E.coli
ProteinLength	57-419a.a.
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.
Storage	The protein is stored in PBS buffer at -20°C. Avoid repeated freezing and thawing cycles.

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Storage Buffer

1M PBS (58mM Na₂HPO₄, 17mM NaH₂PO₄, 68mM NaCl, pH8.) added with 100mM GSH and 1% Triton X-100, 15% glycerol.

GENE INFORMATION

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

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

mRNA Refseq NM_001099735

Protein Refseq NP_001093205

MIM 123295

UniProt ID P17540

Chromosome Location 5

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;

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Function

ATP binding; creatine kinase activity; nucleotide binding;

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