Data Sheet (Cat.No.TMPY-04763U)

TargetMol

CKMT2 Protein, Rat, Recombinant (His) V2

General Information

Synonyms:	creatine kinase, mitochondrial 2 (sarcomeric)
Protein Construction:	Asp40-Lys419
Species:	Rat
Expression Host:	E. coli
Accession:	NP_001121124.1
Molecular Weight:	44.48 kDa (Predicted and reducing conditions)

QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it.
Purity:	> 95% as determined by Tris-Bis PAGE; > 95% as determined by HPLC
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from 0.22 μm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in sterile deionized water. The product concentration should not be less than 100 μg/mL. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Mitochondrial Creatine Kinase (MtCK) is responsible for the transfer of high energy phosphate from mitochondria to the cytosolic carrier, creatine, and exists in mammals as two isoenzymes encoded by separate genes. In rats and humans, sarcomere-specific MtCK (sMtCK) is expressed only in skeletal and heart muscle, and has 87% nucleotide identity across the 1257 bp coding region.

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