Recombinant Human Creatine Kinase, Muscle, Type 1

Cat. No. CKM-197H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human CKMMITI without C-terminal Lysine on both chains produced in*Pichia Pastoris*is a glycosylated polypeptide chain having an identical amino acid sequence compared to the native enzyme, purified under non-denaturing conditions and reacts with polyclonal antibodies to MM Isoenzyme in ELISA. The CKMMITI is purified by proprietary chromatographic techniques.
Species	Human
Source	P.pastoris
Description	Creatine Kinase MM is a cytoplasmic enzyme involved in energy homeostasis and is an important serum marker for myocardial infarction. The encoded protein reversibly catalyzes the transfer of phosphate between ATP and various phosphogens such as creatine phosphate. It acts as a homodimer in striated muscle as well as in other tissues, and as a heterodimer with a similar brain isozyme in heart. The encoded protein is a member of the ATP: guanido phosphotransferase protein family.
Physical Appearance	Sterile Filtered colourless liquid formulation.
Formulation	The protein (7.14 mg/ml) contains 0.1M Tris-HCl, 0.075M NaCl, 10mM 2-ME, 50% glycerol, 0.1% sodium azide, pH 7.2.
Stability	CKMMITI although stable at 15°C for 7 days, should be stored desiccated below -18°C. Please prevent freeze-thaw cycles.

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Purity	Greater than 95.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.
Biological Activity	The biological activity measured by the enzymatic activity of Creatine phosphokinase procedure No.45-UV, 1IU-1 μmole creatine phosphate was 500IU/mg at 37°C.

GENE INFORMATION

Gene Name	CKM creatine kinase, muscle [Homo sapiens]
Synonyms	CKM; creatine kinase, muscle; CKMM; M-CK
Gene ID	1158
mRNA Refseq	NM_001824
Protein Refseq	NP_001815
MIM	123310
UniProt ID	P06732
Chromosome Location	19q13.2-q13.3
Pathway	Arginine and proline metabolism; Metabolic pathways; Metabolism of amino acids; creatine kinase-M; creatine kinase M chain; EC 2.7.3.2
Function	ATP binding; creatine kinase activity; nucleotide binding

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