

CKM, CKB Native Porcine Creatine Kinase

Catalog No.	CSI19647A CSI19647B	Quantity:	50 KU 250 KU
Alternate Names:	Creatine kinase M-type, Creatine kinase B-type, Creatine Phosphokinase, CPK		
Description:	Creatine kinase (CPK) is an enzyme that consists of two subunits, which can be either B (brain type) or M (muscle type). Three different isoenzymes exist: CKBB, CKMM, and CKMB. This enzyme expressed by various tissues and cell types. Heart muscle expresses CKMM at 70%, CKMB at 25-30%. CPK catalyses the conversion of creatine and consumes adenosine triphosphate (ATP) to create phosphocreatine (PCr) and adenosine diphosphate (ADP). This CPK enzyme reaction is reversible, so that also ATP can be generated from PCr and ADP. Creatine kinase's clinical significance: detection of heart disease, liver disease, diseases of the central nervous system and thyroid disease.		
UniProt ID:	Q5XLD3 M-type Q29594 B-type		
Source:	Porcine Heart		
Appearance:	white to tan powder		
Formulation:	Lyophilized from sodium acetate, 1 mM DTT, 1.5 mM EDTA, pH 7.0		
Protein Level:	> 95% (Biuret)		
Purity:	> 99% by SDS-PAGE		
Activity:	≥ 290 U/mg solid by ACA method		
Specific Activity:	≥ 300 U/mg protein (Dimension® Clinical Chemistry System)		
Contaminants:	SGOT: < 0.005% LDH: < 0.005% SGPT: < 0.005% Protease: <0.001 OD/8 min.		
Unit Definition:	One Unit will transfer 1 μmole of phosphate from Creatine Phosphate to ADP per minute at pH 7.4 and 37°C.		
Reconstitution:	Reconstitute in deionized water or dilute buffer.		
Storage & Stability:	Store as supplied at -20°C to -80°C for at least 1 year. Upon reconstitution, prepare working aliquots and store at -20°C to -80°C. Avoid repeated freeze-thaw cycles.		
Country of Origin:	USA		

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