

CKM, CKB

Native Porcine Creatine Kinase

Catalog No.	CSI19647A CSI19647B	Quantity:	25 KU 250 KU
Alternate Names:	CK, Creatine Phosphokinase, CPK		
Description:	Creatine kinase (CK) 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%. CK catalyses the conversion of creatine and consumes adenosine triphosphate (ATP) to create phosphocreatine (PCr) and adenosine diphosphate (ADP). This CK 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.		
Concentration:	≥ 0.7 mg protein/total mg solid (Coomassie)		
UniProt ID:	Q5XLD3 M-type, Q29594 B-type		
Source:	Porcine Heart		
Appearance:	white to pink lyophilized powder		
Formulation:	Lyophilized from 1 mM DTT, 1.5 mM EDTA, pH adjusted to 7.0 with glacial acetic acid.		
Contaminants:	GOT/AST: ≤ 1% LDH: < 1% ALP: < 0.01% GPT/ALT: < 0.01% Ammonia: ≤ 0.05 micromole/mg		
Specific Activity:	≥ 400 U/mg (Dimension® Clinical Chemistry System)		
Unit Definition:	One Unit will transfer 1 mmole of phosphate from Creatine Phosphate to ADP per minute @ 37°C. Measured at 340 nm as one equimolar amount of NADH produced by a coupled reaction		
Reconstitution:	Reconstitute protein to 0.1- 1.0 mg/ml with 20 mM Tris-acetate, 1 mM DTT, 1 mM EDTA, pH 7.0		
Storage & Stability:	Store as supplied at -20°C to -80°C for up to 1 year. Upon reconstitution, prepare working aliquots and store at -20°C to -80°C. Avoid repeated freeze-thaw cycles.		

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