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CKM, CKB
Native Porcine Creatine Kinase

Catalog No.	CSI14897A CSI14897B	**Quantity:**	25 KU 500 KU

Alternate Names: CK, Creatine Phospho-Kinase, CPK

Description: Creatine kinase (CK) s 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 (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:
ALP: < 0.01%
LDH: < 0.01%
ALT/GPT: < 0.01%
GOT/AST: < 1%
Ammonia: < 0.01 micromole/mg

Specific Activity: ≥ 720 U/mg (Dimension® Clinical Chemistry System)

Reconstitution: Reconstitute protein at 0.1- 1.0 mg/ml with 20 mM Tris-acetate, 1 mM DTT, 1 mM EDTA, pH 7.0

Unit Definition: One unit will transfer one micromole 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.

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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Cell Sciences®
65 Parker Street
Unit 11
Newburyport, MA 01950

Toll Free: 888-769-1246
Phone: 978-572-1070
Fax: 978-992-0298

E-mail: info@cellsciences.com
Website: www.cellsciences.com