

# Native Porcine Creatine-Phospho-Kinase

**Cat. No.** CK-5379P    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Native Pig CK was expressed in porcine heart.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Species</b>          | Pig                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Source</b>           | Porcine Heart                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Description</b>      | Creatine kinase(CK), also known as creatine phosphokinase (CPK) or phospho-creatine kinase(and sometimes incorrectly as creatinine kinase), is an enzyme expressed byvarious tissues and cell types. CK catalyses the conversion of creatine andconsumes adenosine triphosphate (ATP) to create phosphocreatine (PCr) andadenosine diphosphate (ADP). This CK enzyme reaction is reversible, such thatalso ATP can be generated from PCr and ADP. Creatine Kinase (CK) enzymeconsists of two subunits, which can be either B (brain type) or M (muscle type). Three different isoenzymes exist: CKBB, CKMM, and CKMB. |
| <b>Form</b>             | Lyophilized                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Unit Definition</b>  | One unit willtransfer one micromole of phosphate from creatine phosphate to ADP per minuteat 37oC. Measured at 340 nm as one equimolar amount of NADH produced by acoupled reaction.                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Storage</b>          | Stored at -20°C.1 year.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Concentration</b>    | Typically >0.7mg/ml                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

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## GENE INFORMATION

|                            |                                                                                                                                                                                                                                                                                                                                               |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>           | CMPK1 cytidine monophosphate (UMP-CMP) kinase 1, cytosolic [ Homo sapiens ]                                                                                                                                                                                                                                                                   |
| <b>Official Symbol</b>     | CMPK1                                                                                                                                                                                                                                                                                                                                         |
| <b>Synonyms</b>            | CMPK1; cytidine monophosphate (UMP-CMP) kinase 1, cytosolic; CMPK, cytidylate kinase; UMP-CMP kinase; Cytidine monophosphate kinase; UMP CMP kinase; UMP CMPK; UMP/CMP kinase; cytidylate kinase; deoxycytidylate kinase; uridine monophosphate kinase; uridin                                                                                |
| <b>Gene ID</b>             | 51727                                                                                                                                                                                                                                                                                                                                         |
| <b>mRNA Refseq</b>         | NM_001136140                                                                                                                                                                                                                                                                                                                                  |
| <b>Protein Refseq</b>      | NP_001129612                                                                                                                                                                                                                                                                                                                                  |
| <b>MIM</b>                 | 191710                                                                                                                                                                                                                                                                                                                                        |
| <b>UniProt ID</b>          | P30085                                                                                                                                                                                                                                                                                                                                        |
| <b>Chromosome Location</b> | 1p34.1-p33                                                                                                                                                                                                                                                                                                                                    |
| <b>Pathway</b>             | Metabolic pathways, organism-specific biosystem; Metabolism, organism-specific biosystem; Metabolism of nucleotides, organism-specific biosystem; Pyrimidine metabolism, organism-specific biosystem; Pyrimidine metabolism, conserved biosystem; Pyrimidine ribonucleotide biosynthesis, UMP =>UDP/UTP,CDP/CTP, organism-specific biosystem; |
| <b>Function</b>            | ATP binding; cytidylate kinase activity; nucleotide binding; phosphotransferase                                                                                                                                                                                                                                                               |

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activity, phosphate group as acceptor; transferase activity; uridine kinase activity;

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