Creative Enzymes
Diagnostic Enzymes

Native Bovine Creatine Phosphokinase

Product Information

Cat#	NATE-0136
Abbr	CK, Native (Bovine)
Alias	CK; CPK; MM-CK; MB-CK; BB-CK
Similar	CK
Species	Bovine
Source	Bovine heart
Description	Creatine kinase plays a key role in the energy metabolism of cells with intermittently high and fluctuating energy requirements. Examples of such cells include cardiac or skeletal muscle cells and neural tissues of brain and retina. The enzyme catalyzes the reversible transfer of the phosphoryl group from phosphorylcreatine to ADP, in order to generate ATP.1 The molecular mass of the protein is found to be approximately 80 kDa Da. It is made up of 2 subunits, each having a molecular weight of 40 kDa ± 2000. The lighter subunit is present in larger amounts.
Applications	Creatine phosphokinase from bovine heart has been used to investigate whether endothelial cell growth is stimulated by ischemic hearts. Creatine phosphokinase from bovine heart has also been used to evaluate the effect of high but nontoxic dietary intake of copper and selenium on metabolism in calves. The product has been used for tATPase assay of myofibrillar protein isolated from rabbit. This assay evaluated the kinetic influence of bound creatine kinase (CK) on Ca2+-activated myosin ATPase. The product has also been used for the enzymatic hydrolysis of protein samples during tryptophan estimation by pyrolysis gas chromatography.
Product Overview	Protein determined by biuret.
Form	salt-free, lyophilized powder.
Enzyme Commission Number	EC 2.7.3.2

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Activity	> 100 U/mg
CAS No.	9001-15-4
Unit Definition	One unit will transfer 1.0 μmole of phosphate from phosphocreatine to ADP per min at pH 7.4 at 30°C.
Storage	−20°C
Synonyms	EC 2.7.3.2; ATP:creatine phosphotransferase; CK; CPK; MM-CK; MB-CK; BB-CK; creatine phosphokinase; creatine phosphotransferase; phosphocreatine kinase; adenosine triphosphate-creatine transphosphorylase; Mi-CK; CK-BB; CK-MM; CK-MB; CKMiMi; MiMi-CK; 9001-15-4

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