Creative Enzymes®

Native Pseudomonas sp. Creatinine amidohydrolase

Cat. No. DIA-130

Lot. No. (See product label)

Introduction

Description	Creatinine Amidohydrolase catalyzes the hydrolytic reaction converting creatinine to creatine. The enzyme is purified from a microorganism. The molecular size of the enzyme is approximately 175,000. The enzyme is useful for the enzy-matic assay of creatinine when coupled with other related enzymes. Creatinine + H2O → Creatine.
Applications	This enzyme is useful for enzymatic determination of creatinine when coupled with creatine amidinohydrolase, sarcosine dehydrogenase or sarcosine oxidase and formaldehyde dehydrogenase in clinical analysis.
Synonyms	creatininase; creatinine hydrolase; creatinine amidohydrolase; EC 3.5.2.10; 9025-13-2

Product Information

Source	Pseudomonas sp.
Form	Lyophilized powder containing sucrose and BSA as stabilizers
EC Number	EC 3.5.2.10
CAS No.	9025-13-2
Molecular Weight	175 kDa
Activity	> 250U/mg protein
Isoelectric point	4.7
pH Stability	pH 7.5-9.0 (5°C, 16hr)
Optimum pH	6.5-7.5
Thermal stability	Below 70°C (pH 7.5, 30 min)
Optimum temperature	70°C
Michaelis Constant	3.2 x 10^{-2}M (Creatinine), 5.7 x 10^{-2}M (Creatine)
Structure	6 subunits per mol of enzyme (One mol of zinc is bound to each subunit)
Inhibitors	Ag+, Hg++, N-bromosuccinimide, EDTA
Function	hydrolase activity, acting on carbon-nitrogen (but not peptide) bonds, in cyclic amides.
Unit Definition	One unit will hydrolyze 1.0 mmole of creatinine to creatine per min at pH 8.0 and 25 °C

Storage and Shipping Information

Storage	2-8°C