

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 enzymatic 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 amidohydrolase, 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 10⁻²M (Creatinine), 5.7 x 10⁻²M (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