Tribioscience

Creatinine amidohydrolase, Enzyme Activity

Creatinine amidohydrolase (EC 3.5.2.10)¹⁾

H₂N-C-N-CH₂-COOH

 $H_3C-N < C-NH$ C-C=OC-C=O $H_2O = H_2O = H_2O = H_2O = H_2O$

H₂

Catalog	Unit
TBP0010-1KU	1000 U
TBP0010-5KU	5000 U

Preparation and Specification

Appearance: White amorphous powder, lyophilized

Activity: GradeII (-211) 450U/mg-solid or more; GradeIII (-311) 150U/mg-solid or more

Contaminants: NADH oxidase $\leq 5.0 \times 10^{-20}$; Catalase $\leq 2.0\%$

Stabilizers: Sucrose, BSA

Properties

Stability: Stable at -20°C for at least One year

Molecular weight: approx. 175,000

Isoelectric point: 4.7

Michaelis constants: 3.2×10⁻²M (Creatinine), 5.7×10⁻²M (Creatine)

Structure: 6 subunits per enzyme molecule (One zinc is bound to each subunit)

Inhibitors: Ag+, Hg++, N-bromosuccinimide, EDTA

Optimum pH: 6.5-7.5

Optimum temperature: 70°C

pH Stability: pH 7.5-9.0 (5°C, 16hr)

Thermal stability: below 70°C (pH 7.5, 30min)

Applications

This enzyme is useful for enzymatic determination of creatinine when coupled with creatine amidinohydrolase (CRH-211, CRH-221, CRH-229) and sarcosine oxidase (SAO-351) in clinical analysis.

For research use only