

Creatinine deiminase, Enzyme Activity

Catalog	Unit
TBP0011-250U	250 U
TBP0011-1KU	1000 U

Preparation and Specification

Appearance: White amorphous powder, lyophilized

Activity: Grade III 10U/mg-solid or more (containing approx. 30% of stabilizer)

Contaminants: Creatinine amidohydrolase $\leq 1.0 \times 10^{-2}\%$;

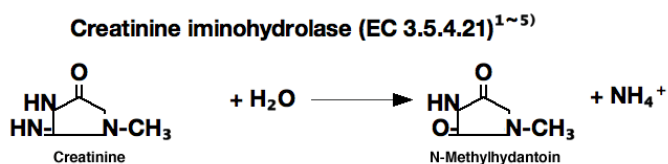
Creatine amidinohydrolase $\leq 1.0 \times 10^{-2}\%$;

Urease $\leq 1.0 \times 10^{-2}\%$;

NADH oxidase $\leq 1.0 \times 10^{-2}\%$;

$\text{NH}_4^+ \leq 1.0 \times 10^{-2}\%$ $\mu\text{g/u}$

Stabilizer: Mannitol



Properties

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

Molecular weight: approx. 260,000

Isoelectric point: 4.4

Michaelis constant: $3.5 \times 10^{-3}\text{M}$ (Creatinine)

Structure: 6 subunits per enzyme molecule

Inhibitors: Ag⁺, Hg⁺⁺, o-phenanthroline, monoiodoacetate

Optimum pH: 8.5-9.5

Optimum temperature: 65-75°C

pH Stability: pH 7.0-11.0 (30°C, 20hr)

Thermal stability: below 65°C (pH 7.5, 1hr)

Applications

This enzyme is useful for enzymatic determination of creatinine when coupled with glutamate dehydrogenase in clinical analysis.

For research use only