

Product Specification Sheet

Cat# CRE-02

Creatininase

Size: 50 mU

General Information

creatininase (EC 3.5.2.10; Creatinine amidohydrolase; CAS# 90285-13-2; EINECS# 232-768-8; ~275 aa depending upon the species;) is an enzyme that catalyzes the chemical reaction

[creatinine + H₂O](#) [creatine](#)

Thus, the two substrates of this enzyme are creatinine and H₂O, whereas its product is creatine.

This enzyme belongs to the family of hydrolases, those acting on carbon-nitrogen bonds other than peptide bonds, specifically in cyclic amides. The systematic name of this enzyme class is creatinine amidohydrolase. This enzyme is also called creatinine hydrolase. This enzyme participates in arginine and proline metabolism.

Source:

Creatininase is an enzyme that is produced in E. Coli using recombinant DNA technology. It is supplied in powder form with no additives or preservatives. The product is supplied on enzyme activity (KU; The amount of enzyme which produces 1 umol of creatine per min at 37oC and pH 6.5.

The final enzyme preparation contains minimal amounts of the relevant contaminants (<1.0 of catalase). The activity is >~500 U/mg material.

Storage and Usage

Store powder at -20oC or below under dry conditions. Allow the product to reach room temp before opening the vial and dissolve in appropriate buffers for usage. Before returning to storage, re-dessicate under vacuum over silica gel for a minimum of 4 hours to provide best conditions for long term preservation of enzyme activity.

References

Starkenbug SR (2006) Appl Environ. Microbiol. 72, 2050

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