

Product Specification Sheet

Cat# CRT-1F

Creatinase, Recombinant E. Coli

Size: 20 mU

General Information

Creatinase (EC 3.5.3.3 or creatine aminohydrolase; CAS #37340-58-2; protein accession #P38487; 411 aa ~47 kda, homodimer)) is an enzyme that catalyzes the chemical reaction.

Creatine + H₂O sarcosine + urea

Thus, the two substrates of this enzyme are creatine and H₂O, whereas its two products are sarcosine and urea. This enzyme belongs to the family of hydrolases, those acting on carbon-nitrogen bonds other than peptide bonds, specifically in linear amidines. The systematic name of this enzyme class is creatine amidinohydrolase. This enzyme participates in arginine and proline metabolism.

Source:

Creatinase 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 urea per min at 37oC and pH 7.7.

The final enzyme preparation contains minimal amounts of the relevant contaminants (<0.5% of catalase). The activity is >~10 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

Suzuki K (1993) J. Ferment. Bioeng. 76, 77-81

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