

## Creatinase from Pseudomonas sp., Recombinant

Cat. No. NATE-0162

Lot. No. (See product label)

### Introduction

**Description** In enzymology, a creatinase (EC 3.5.3.3) is an enzyme that catalyzes the chemical reaction: creatine + H<sub>2</sub>O ⇌ sarcosine + urea. Thus, the two substrates of this enzyme are creatine and H<sub>2</sub>O, 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. Creatinase accelerates the conversion reaction of creatine and water molecule to sarcosine and urea. It always acts in homodimer state and is induced by choline chloride.

**Applications** Creatine amidinohydrolase is a clinically important enzyme used in the determination of creatinine in blood and urine.

**Synonyms** Creatine amidinohydrolase; creatinase; 37340-58-2; EC 3.5.3.3

### Product Information

**Species** Pseudomonas sp.

**Source** E. coli

**Form** lyophilized powder

**EC Number** EC 3.5.3.3

**CAS No.** 37340-58-2

**Activity** 10-20 units/mg protein

**Composition** Protein, ~70% biuret

**Unit Definition** One unit will hydrolyze 1.0 µmole of creatine to urea and sarcosine per min at pH 7.5 at 37°C.

### Storage and Shipping Information

**Stability** 2-8°C