

## Creatininase from E. coli, Recombinant

Cat. No. NATE-1242

Lot. No. (See product label)

### Introduction

**Description** Creatininase from Pseudomonas sp. is a homohexameric enzyme with a molecular mass of 28.4 kDa per subunit. It is a cyclic amidohydrolase catalysing the reversible conversion of creatinine to creatine. Each monomer contains a binuclear zinc centre near the C termini of the  $\beta$ -strands and the N termini of the main  $\alpha$ -helices. These zinc ions indicate the location of the active site.

**Synonyms** EC 3.5.2.10, creatinine hydrolase; Creatininase; 9025-13-2

### Product Information

<b>Species</b>	E. coli
<b>Source</b>	E. coli
<b>Appearance</b>	White lyophilizate
<b>EC Number</b>	EC 3.5.2.10
<b>CAS No.</b>	9025-13-2
<b>Molecular Weight</b>	ca. 170 kDa
<b>Activity</b>	> 500 U/mg lyophilizate
<b>Contaminants</b>	catalase < 1.0%
<b>Isoelectric point</b>	4.8
<b>pH Stability</b>	7.0-11.0
<b>Optimum pH</b>	6.5-7.0
<b>Thermal stability</b>	below 60°C
<b>Optimum temperature</b>	60-65°C
<b>Michaelis Constant</b>	3.4 x 10 <sup>-2</sup> M (creatinine) 4.3 x 10 <sup>-2</sup> M (creatine)
<b>Structure</b>	6 subunits of 28 kDa (SDS-PAGE)
<b>Activators</b>	Mg <sup>2+</sup> , Mn <sup>2+</sup>
<b>Inhibitors</b>	Hg <sup>2+</sup>
<b>Unit Definition</b>	One unit (U) is defined as the amount of enzyme which produces 1 $\mu$ mol of creatine per min at 37°C and pH 6.8.

### Storage and Shipping Information

**Storage** at -20°C

