Creative Enzymes®

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 β-strands and the N termini of the main α-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

Species	E. coli
Source	E. coli
Appearance	White lyophilizate
EC Number	EC 3.5.2.10
CAS No.	9025-13-2
Molecular Weight	ca. 170 kDa
Activity	> 500 U/mg lyophilizate
Contaminants	catalase < 1.0%
Isoelectric point	4.8
pH Stability	7.0–11.0
Optimum pH	6.5–7.0
Thermal stability	below 60°C
Optimum temperature	60–65°C
Michaelis Constant	3.4 x 10^-2 M (creatinine) 4.3 x 10^-2 M (creatine)
Structure	6 subunits of 28 kDa (SDS-PAGE)
Activators	Mg2+, Mn2+
Inhibitors	Hg2+
Unit Definition	One unit (U) is defined as the amount of enzyme which produces 1 µmol of creatine per min at 37°C and pH 6.8.

Storage and Shipping Information

Storage	at -20°C