

Creatininase from *E. coli*, Recombinant

Product Information

Cat#	NATE-1242
Abbr	Creatininase, Recombinant (<i>E. coli</i>)
Similar	Creatininase
Species	<i>E. coli</i>
Source	<i>E. coli</i>
Description	Creatininase from <i>Pseudomonas</i> 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.
Appearance	White lyophilizate
Enzyme Commission Number	EC 3.5.2.10
Activity	> 100 U/mg
Contaminants	catalase < 1.0%
Molecular Weight	ca. 170 kDa
Isoelectric point	4.8
pH Stability	7.0–11.0
Michaelis Constant	3.4 x 10 ⁻² M (creatinine) 4.3 x 10 ⁻² M (creatine)
Structure	6 subunits of 28 kDa (SDS-PAGE)
Unit Definition	One unit (U) is defined as the amount of enzyme which produces 1 μ mol of creatine per min at 37°C and pH 6.8.
Optimum pH	6.5–7.0

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Optimum temperature 60–65°C

Activators Mg²⁺, Mn²⁺

Thermal stability below 60°C

Storage at -20°C

Inhibitors Hg²⁺

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