



CREATINASE (*Bacillus* sp.) (Lot 120201a)

Recombinant

E-CREA

05/12

(EC 3.5.3.3) Creatine amidinohydrolase

PROPERTIES

1. ELECTROPHORETIC PURITY:

- Single band on SDS-gel electrophoresis (MW ~ 47,000)
- Single major band on isoelectric focusing (pI ~ 5.5)

2. SPECIFIC ACTIVITY:

10 U/mg protein at pH 7.5 and 37°C.

One Unit of creatinase is defined as the amount of enzyme required to produce one μ mole of creatine to sarcosine and urea per minute monitored at 435 nm under the following assay conditions:

Potassium phosphate buffer, pH 7.5	50 mM
Creatine	100 mM

3. PHYSICOCHEMICAL PROPERTIES:

Recommended conditions of use are at pH 7.0 - 9.0 and 25°C - 40°C.

pH Optima:	7.5 - 8.0
pH Stability:	5.0 - 9.0 (> 75% control activity after 24 hours at 4°C)
Temperature Optima:	37°C - 40°C (10 min. reaction)
Temperature Stability:	up to 40°C

4. STORAGE AND USE CONDITIONS:

The enzyme is supplied as an ammonium sulphate suspension in 0.02% (w/v) sodium azide and should be stored at 4°C. For assay, this enzyme should be diluted in Potassium phosphate buffer (10 mM), pH 7.5 containing 1 mg/mL BSA. **Swirl to mix the enzyme immediately prior to use.**