



Bacillus subtilis Subtilisin E (recombinant) Solution (5 mg/ml)

Cat. No.	size
E4355-01	20 µl, 100 µg
E4355-02	100 µl, 500 µg

Concentration:

5 mg/ml (20 U/mg), 0.1U/µl

Source:

Recombinant Bacillus subtilis Subtilisin E (aprE) expressed in E.coli.

Unit definition:

One unit is defined as the amount of enzyme that hydrolyzes urea-denatured hemoglobin to produce color equivalent to 1.0 µmol of tyrosine per 1 minute at pH 7.5 at 37°C (color by Folin & Ciocalteu's Phenol Reagent).

Storage Conditions:

Long term at -20°C.

Short term at 2-8°C.

Description:

Subtilisin E is a calcium-dependent serine endopeptidase with broad substrate specificity. The enzyme cleaves peptide bonds preferentially on the carboxyl side of hydrophobic amino acid residues. The enzyme exhibits maximum activity at pH 7.5-8.0 and 50-55°C. The presence of calcium ions (1-5 mM CaCl₂) in the reaction buffer is recommended to maintain structural stability and catalytic efficiency. Subtilisin E is recommended for controlled protein hydrolysis, peptide mapping and biochemical research.

Storage buffer:

20 mM Tris-HCl pH 7.4, 1 mM CaCl₂, 50% Glycerol.

Quality Control:

All preparations are assayed for contaminating endonuclease, 3'-exonuclease, RNase and nonspecific single- and double-stranded DNase activities. Typical preparations are greater than 98% pure, as judged by SDS polyacrylamide gel electrophoresis.