Creative Enzymes®

Native Staphylococcus aureus Endoproteinase GluC

Cat. No. NATZ-137

Lot. No. (See product label)

Introduction

Description	This enzyme is isolated from Staphylococcus aureus V8 and specifically cleaves at the carboxyl side of glutamic acid residues. It cleaves peptide bonds at the carboxyl side of both glutamic acid and aspartic acid in phosphate buffer systems, and at the carboxyl side of glutamic acid in ammonium buffer systems. Due to its high substrate specificity, it is used for peptide mapping in various protein sequencing analyses. 1. Cleavage Exclusively at the Carboxyl Terminus of Glutamic Acid Digest at 30–37°C for 2–24 hours in either 0.01–0.1 mol/L ammonium bicarbonate (pH 7.8) or 0.01–0.1 mol/L ammonium acetate (pH 4.0), with an enzyme-to-substrate molar ratio of 1:30–100. 2. Simultaneous Cleavage at the Carboxyl Terminus of Aspartic Acid Digest under the same conditions as above in 0.01–0.1 mol/L phosphate buffer (pH 7.8).
Applications	Specifically cleaves at the carboxyl side of glutamic acid residues. Peptide mapping for sequence analysis of various proteins.
Synonyms	Protease V8

Product Information

Source	Staphylococcus aureus V8
Form	White crystals or crystalline powder
CAS No.	66676-43-5
Molecular Weight	Approximately 27,000
Activity	20 units/mg or higher
Optimum pH	Proteolytic activity is detectable across the pH range of 3.5–9.5, with maximum activity observed at pH 4.0 and pH 7.8 (using hemoglobin as the substrate).
Unit Definition	One unit is defined as the amount of enzyme that produces 1 µmol of 4-nitroaniline from the substrate 2-Phe-Leu-Glu-4-NA per minute at pH 7.8 and 25°C.