

PEP (Prolyl Endopeptidase)

Cat. No. PEPG-001

Lot. No. (See product label)

Introduction

Description

PEP is a thermostable prolyl endopeptidase that hydrolyzes peptide bonds at the carboxyl side of proline residues in proteins.

Applications

Gluten hydrolysis for removal of certain allergens. Hydrolysis of other proteins to prepare low-molecular-weight peptides. Other applicable uses.

Product Information

Source

Recombinant microbial expression

Form

Powder

Optimum pH

5.0-8.0; maximum activity at pH 6.6.

Thermal stability

At 60°C, enzyme activity decreases by 25% per hour.

Optimum temperature

30-40°C; maximum enzyme activity at 60°C.

Specificity

Hydrolyzes peptide bonds at the carboxyl side of proline residues, with stronger activity toward proline in -Xa-P-F-Xa-, -Xa-P-Q-Xa-, and -Xa-P-Y-Xa- motifs.

Activators

Co²⁺ promotes enzyme activity and stability.

Inhibitors

Mg²⁺, K⁺, Ca²⁺, Zn²⁺, Na⁺, Mn²⁺, Al³⁺, and Cu²⁺ inhibit the enzyme.

Function

Catalyzes hydrolysis of peptide bonds at the carboxyl side of proline residues in proteins.

Substrates

Gluten and other proteins.

Usage

For gluten hydrolysis to reduce certain allergens and for hydrolysis of other proteins to prepare low-molecular-weight peptides.

Storage and Shipping Information

Storage

Store at -20°C.

Shipping Conditions

Room temperature.