Creative Enzymes®

Native Porcine Trypsin

Cat. No. NATE-0723

Lot. No. (See product label)

Introduction

Description Trypsin (EC 3.4.21.4) is a serine protease from the PA clan superfamily, found in the digestive system of many vertebrates, where it hydrolyses proteins. Trypsin is produced in the pancreas as the inactive protease trypsinogen. Trypsin cleaves peptide chains mainly at the carboxyl side of the amino acids lysine or arginine, except when either is followed by proline. It is used for numerous biotechnological processes. The process is commonly referred to as trypsin proteolysis or trypsinisation, and proteins that have been digested/treated with trypsin are said to have been trypsinized.

Applications For use in immunohistochemical procedures to enhance staining and to unmask antigens after routine fixation and processing. For trypsin digestion of peptides, use a ratio of about 1:100 to 1:20 for trypsin:peptide. The typical use for this product is in removing adherent cells from a culture surface. The concentration of trypsin necessary to dislodge cells from their substrate is dependent primarily on the cell type and the age of the culture. Trypsins have also been used for the re-suspension of cells during cell culture, in proteomics research for digestion of proteins and in various in-gel digestionsnst†. Additional applications include assessing crystallization by membrane-based techniques and in a study to determine that protein folding rates and yields can be limited by the presence of kinetic traps.

Synonyms α-trypsin; β-trypsin; cocoonase; parenzyme; parenzymol; tryptar; trypure; pseudotrypsin; tryptase; tripcellim; sperm receptor hydrolase; Alpha-trypsin; Beta-trypsin; EC 3.4.21.4; Trypsin

Product Information

Species Porcine

Source Porcine pancreas

Form lyophilized powder

EC Number EC 3.4.21.4

CAS No. 9002-07-7

Molecular Weight 23.8 kDa

Activity Type II-S, 1 ,000-2 ,000 units/mg dry solid; Type IX-S, 13 ,000-20 ,000 BAEE units/mg protein

Buffer Solubilizing trypsin should be done with a buffered salt solution contaiing no Ca2+ or Mg2+. This product is a lyophilized powder soluble in Hank′s Balanced Salt Solution at 25 mg/mL.

Storage and Shipping Information

Storage 2-8°C

Stability Solutions in 1 mM HCl are stable for 1 year in aliquots and stored at-20°C. The presence of Ca2+ will also diminish the self-autolysis of trypsin and maintain its stability in solution. Trypsin will also retain most of its activity in 2.0 M urea, 2.0 M guanidine HCl, or 0.1% (w/v) SDS.