Creative Enzymes®

Native Porcine Pepsinogen

Cat. No. NATE-0547

Lot. No. (See product label)

Introduction

Description	Pepsinogen is the zymogen of pepsin. It is processed by autocatalytic cleavage of 44 amino acids to generate active pepsin. Serum levels of pepsinogen have been measured to identify gastric cancer risk.
Applications	Pepsin is an enzyme whose zymogen (pepsinogen) is released by the chief cells in the stomach and that degrades food proteins into peptides. It was discovered in 1836 by Theodor Schwann who also coined its name from the Greek word πέψις pepsis, meaning "digestion" (from πέπτειν peptein "to digest"). It was the first enzyme to be discovered, and, in 1928, it became one of the first enzymes to be crystallized, by John H. Northrop. Pepsin is a digestive protease, a member of the aspartate protease family. Pepsin is one of three principal protein-degrading, or proteolytic, enzymes in the digestive system, the other two being chymotrypsin and trypsin. The three enzymes were among the first to be isolated in crystalline form. During the process of digestion, these enzymes, each of which is specialized in severing links between particular types of amino acids, collaborate to break down dietary proteins into their components, i.e., peptides and amino acids, which can be readily absorbed by the intestinal lining. Pepsin is most efficient in cleaving peptide bonds between hydrophobic and preferably aromatic amino acids such as phenylalanine, tryptophan, and tyrosine.
Synonyms	pepsinogen; 9001-10-9; Pepsinogen from hog stomach

Product Information

Species	Porcine
Source	Porcine Stomach
Form	lyophilized powder
CAS No.	9001-10-9
Activity	~3,000 units/mg protein (after activation to pepsin at pH 2.0 at 25°C)

Storage and Shipping Information

Storage	2-8°C