

Native Human α -Chymotrypsin

Cat. No. NATE-0747

Lot. No. (See product label)

Introduction

Description

Chymotrypsin is a digestive enzyme component of pancreatic juice acting in the duodenum where it performs proteolysis, the breakdown of proteins and polypeptides. Chymotrypsin preferentially cleaves peptide amide bonds where the carboxyl side of the amide bond (the P1 position) is a large hydrophobic amino acid (tyrosine, tryptophan, and phenylalanine). These amino acids contain an aromatic ring in their sidechain that fits into a 'hydrophobic pocket' (the S1 position) of the enzyme. It is activated in the presence of trypsin.

Applications

Human α -chymotrypsin has been used in a study to assess the quantitative structure-activity relationships for organophosphates binding to trypsin and chymotrypsin. Human α -chymotrypsin has also been used in a study to investigate the direct detection of native proteins in biological matrices using extractive electrospray ionization mass spectrometry.

Synonyms

EC 3.4.21.1; α -Chymotrypsin; chymotrypsins A and B; alpha-chymar ophth; avazyme; chymar; chymotest; enzeon; quimar; quimotrase; alpha-chymar; alpha-chymotrypsin A; alpha-chymotrypsin; Chymotrypsin

Product Information

Species

Human

Source

Human pancreas

Form

lyophilized powder

EC Number

EC 3.4.21.1

CAS No.

9004-07-3

Molecular Weight

mol wt 25 kDa

Pathway

Activation of Matrix Metalloproteinases, organism-specific biosystem; Degradation of the extracellular matrix, organism-specific biosystem; Extracellular matrix organization, organism-specific biosystem; Pancreatic secretion, organism-specific biosystem; Pancreatic secretion, conserved biosystem; Protein digestion and absorption, organism-specific biosystem; Protein digestion and absorption, conserved biosystem

Function

peptidase activity; serine-type endopeptidase activity

Unit Definition

One unit will hydrolyze 1.0 μ mole of BTEE per min at pH 7.8 at 25°C.

Storage and Shipping Information

Storage

-20°C