

Enterokinase from bovine intestine, Recombinant

Cat. No. NATE-0226

Lot. No. (See product label)

Introduction

Description

Enteropeptidase (also called enterokinase) is an enzyme produced by cells of the duodenum and involved in human and animal digestion. It is secreted from intestinal glands (the crypts of Lieberkühn) following the entry of ingested food passing from the stomach. Enteropeptidase converts trypsinogen (a zymogen) into its active form trypsin, resulting in the subsequent activation of pancreatic digestive enzymes. Absence of enteropeptidase results in intestinal digestion impairment.

Applications

Enterokinase is a member of the S1 peptidase family. In vivo, it is responsible for the proteolytic activation of trypsin from trypsinogen. Enterokinase is used for site specific cleavage of recombinant fusion proteins containing an accessible enterokinase recognition site for removal of affinity tags. Enterokinase from bovine intestine has been used in a study to assess duodenase as a potential activator of cascade digestive proteases. Enterokinase from bovine intestine has also been used in a study to investigate an inhibitor of enteropeptidases and trypsin from the bovine duodenum. The enzyme from Creative Enzymes has been used to compare the specific activity with that of purified, recombinant bovine enterokinase (light chain) overexpressed in *Escherichia coli*.

Synonyms

enterokinase; enteropeptidase; EC 3.4.21.9; 9014-74-8

Product Information

Species

Bovine intestine

Source

E. coli

Form

Type I, supplied as a solution in 20 mM Tris-HCl, 200 mM NaCl, and 50% glycerol; Type II, white powder.

EC Number

EC 3.4.21.9

CAS No.

9014-74-8

Molecular Weight

28 kDa light chain form

Activity

Type I, > 20 units/mg protein

Concentration

> 0.1 mg/mL

Function

scavenger receptor activity; serine-type endopeptidase activity

Unit Definition

One unit will produce 1.0 nanomole of trypsin from trypsinogen per min at pH 5.6 at 25°C.

Usage and Packaging

Package

vial of ~0.2 unit

Storage and Shipping Information

Storage

–20°C