

RayBiotech, Inc.

3607 Parkway Lane suite 200 Norcross,GA 30092 Tel: 770-729-2992, 1-888-494-8555

Fax: 770-206-2393

Website: www.raybiotech.com Email: info@raybiotech.com

Certificate of Analysis and Data Sheet

Recombinant Human Enteropeptidase/Enterokinase, Light Chain (Enterokinase Human)

Catalog No. Source
228-10395 Escherichia Coli.

Synonyms

Enteropeptidase, EC 3.4.21.9, Enterokinase, Serine protease 7, ENTK, MGC133046.

Introduction

Enteropeptidase or enterokinase is an enzyme involved in human digestion. It is produced by cells in the duodenum wall, and is secreted from duodenum's glands, the crypts of Lieberkühn, whenever ingested food enters the duodenum from the stomach. Enteropeptidase has the critical job of turning trypsinogen(a zymogen) to trypsin, indirectly activating a number of pancreatic digestive enzymes. Enteropeptidase is a serine protease enzyme(EC3.4.21.9). Enteropeptidase is a part of the Chymotrypsin-clan of serine proteases, and is structurally similar to these proteins.

Description

Enteropeptidase Human is a specific protease that cleaves after the sequence Asp-Asp-Aps-Lys. The light chain of enteropeptidase has full enzymatic activity. No other protease activity was detected. Human enteropeptidase binds specifically to STI-agarose.

Physical Appearance

Liquid solution.

Formulation

50 mM Tris-HCl, pH $8.0,\,0.5 M$ NaCl and 50% glycerol.

Stability

One year when stored at -20° C, three weeks at room temperature.



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Unit Definition

One unit of human enteropeptidase will cleave 2 mg of thioredoxin/human EGF fusion protein with the Asp-Asp-Asp-Asp-Lys sequence at the joining point in 22 hours at 4°C, in 16 hours at 25°C or in 8 hours at 37°C.

Assay Conditions

50mM TRIS-HCl or sodium phosphate (pH 8.0) at 25°C with or without CaCl2. The enzyme is active at a pH range of 6.0-9.0.

Dilution buffer

50mM Tris-Hcl, pH 8.0, 500mM NaCl and 50% glycerol.