



Product Data Sheet

Cat # RP-352

Recombinant Human Enteropeptidase/Enterokinase, Light Chain

**Size:** 20 IU

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 (EC 3.4.21.9). Enteropeptidase is a part of the Chymotrypsin-clan of serine proteases, and is structurally similar to these proteins.

**Usage:** This item is for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

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**Source:** Escherichia Coli. Enteropeptidase Human is a specific protease that cleaves after the sequence Asp-Asp-Aps-Aps-Lys. The light chain of enteropeptidase has full enzymatic activity. No other protease activity was detected. Human enteropeptidase binds specifically to STI-agarose. 50mM Tris-HCl, pH 8.0, 0.5M NaCl and 50% glycerol.

**Applications and Suggested Dilutions:** 50mM TRIS-HCl or sodium phosphate (pH 8.0) at 25°C with or without CaCl<sub>2</sub>. The enzyme is active at a pH range of 6.0-9.0. Users must optimize the appropriate concentrations and conditions for each assay.

**Storage and Stability:** One year when stored at -20°C, three weeks at room temperature. If supplied in powder then reconstitute it in 100 ul water for 1 mg/ml stock and store in liquid at 4°C for ~1 week or aliquots in suitable size and store at -20°C for long term storage.

**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