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Product Data Sheet

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Cat # RP-1464

Porcine Enteropeptidase/Enterokinase

Size: 100 IU

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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.

**Source:** Porcine enteropeptidase is a specific protease which cleaves after the lysine at its recognition site: Asp-Asp-Asp-Asp-Lys. Enterokinase will not cleave a site followed by proline. If a fusion tag is located in the N-terminus with an enterokinase site, enterokinase will be able to remove the fusion tag and to generate the protein exactly as you need without adding any unwanted residues. ProSpec's enterokinase is a highly purified enterokinase from porcine. The enzyme has been extensively purified and tested to ensure that there are no other contaminating proteases. 2 IU/ $\mu$ l, 50mM Tris-HCl, pH 8.0, 0.5M NaCl and 50% glycerol.

**Applications and Suggested Dilutions:** One unit is defined as the amount of enzyme needed to cleave 50  $\mu$ g of fusion protein in 16 hours to 95% completion at 25°C in a buffer containing 25mM Tris-HCl, pH 7.6, 50mM NaCl, and 2mM  $\text{CaCl}_2$ . Users must optimize the appropriate concentration 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  $\mu$ l 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.

**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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