

## Enterokinase, His, Bovine

**Cat. No.:** Z03004-5000

**Size:** 5000.0 IU

**Synonyms:** Enteropeptidase, ENTK, PRSS7

### Description:

Enterokinase (EK) is an enzyme produced by cells of the duodenum and involved in human digestion. It plays a role of turning trypsinogen to its active form trypsin, and indirectly activates the pancreatic digestive enzymes. Enterokinase is a specific protease that cleaves after a lysine preceded by four aspartic acids: Asp-Asp-Asp-Asp-Lys. Enterokinase will not work if the recognition site is followed by a proline. rbEK with 6 × His-tag binds with Ni<sup>2+</sup> affinity chromatography and was designed for removing from digestion system.

Recombinant Bovine Enterokinase (rbEK) as the light chain is a single glycosylated polypeptide chain containing 200 amino acids. A fully biologically active molecule, rbEK has a molecular mass of 22.7 kDa and is obtained by proprietary chromatographic techniques at GenScript.

Components:

100 IU (or 500IU or 5000IU) Recombinant Bovine Enterokinase (in 20mM Tris-HCl, pH 7.4, 200mM NaCl, 2mM CaCl<sub>2</sub>, 50% glycerol) 100µg Cleavage Control Protein (Lyophilized after extensive dialysis against PBS, pH 7.0) 3.6 ml EK Dilution/Storage Buffer (20mM Tris-HCl, pH 7.4, 200mM

NaCl, 2mM CaCl<sub>2</sub>, 50% glycerol) 1.8 ml 10X EK Cleavage/Capture Buffer (200mM Tris-HCl, pH 7.4, 500mM NaCl, 20mM CaCl<sub>2</sub>)

**Source:** *P. pastoris*

**Species:** Bovine

**Biological Activity:** 5 IU/µl.

Unit Definition: One unit is defined as the amount of enzyme needed to cleave 50 µg of fusion protein in 16 hours to 95% completion at 22°C in a buffer containing 25mM Tris-HCl, pH 8.0.

**Molecular Weight:** Theoretical MW: 22.7 kDa.

Apparent MW: 40.0 kDa, observed by reducing SDS-PAGE.

**Formulation:** Sterile liquid solution contains 20mM Tris, 200mM NaCl, 2mM CaCl<sub>2</sub>, 50% glycerol, pH 7.4.

**Purity:** > 95% by SDS-PAGE analyses.

**Endotoxin Level:** < 1.0 EU/µg, determined by LAL method.

**Storage:** Recombinant Bovine Enterokinase (rbEK) remains stable up to 1 year at -20°C from date of receipt. It will remain stable at 37°C for one week without losing any activity. Please avoid freeze-thaw cycles.