

Recombinant Enterokinase, Mass Spec Grade

Cat. No. Enterokinase-56 **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Description Enterokinase (EK) is a highly specific serine protease that recognizes the amino acid sequence Asp-Asp-Asp-Lys and cleaves after the lysine residue. It is commonly used to remove fusion tags from recombinant proteins without affecting native sequences. EK is suitable for use in pharmaceutical, diagnostic, and structural biology applications due to its high specificity, efficiency, and activity under mild conditions. This product is a highly pure, specific, and active bovine enterokinase mutant produced via recombinant expression in *E. coli*.

Form Lyophilized powder containing 0.39 mg Tris-HCl and 0.01 mg CaCl₂.

Bio-activity 16,000 unit/mg

Molecular Mass 26.2 kDa

Purity Impurity protein peaks measured by LC at 280 nm; rEnterokinase peak intensity >98.5 %.

Storage At -20 centigrade freezer

Reconstitution Dissolve in 50 µL of ultra-pure water to 1 µg/µL

CAS No. 70023-02-8

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

Shelf life	12 months at -20 centigrade freezer
Usage Notes	Usage Instructions: Recommended buffer system: 50 mM Tris or HEPES buffer, pH 6.0-8.5. Fusion protein digestion: Use a 1:500 or 1:1000 enzyme-to-protein ratio; maintain protein concentration at 0.2-0.5 µg/µL; incubate at 4-25 centigrade for 12 hours. Note: >2 M urea, >250 mM NaCl, >20 mM β-ME, >0.1 % SDS, >50 mM imidazole, or PBS may impair enzyme activity.
Specificity	Substrate Gly-Asp-Asp-Asp-Asp-Lys-β-naphthylamide (GD4K-na) was digested with enterokinase at 4 centigrade for 20 hours; ESI-MS/MS analysis confirmed 100 % specificity.
Unit Definition	One unit is defined as the amount of enzyme in 1 µg enterokinase (diluted 20×) that reacts with 0.012 µmol GD4K-na peptide under the following conditions: 50 µL 50 mM Tris (pH 8.0), incubated at 4 centigrade for 20 hours, analyzed by LC-MS.
LC-MS/MS Analysis	25 µg GD4K-na peptide incubated with 0.05 µg enterokinase in 50 µL 50 mM Tris for 20 hours; specificity confirmed by ESI QE HF mass spectrometry.
pH Range	Optimal pH Range: pH 6.0-8.5

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA