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Product Information

Recombinant Bovine Enterokinase

CATALOG NUMBER:	14-REK
CAS:	9017-74-8
EC:	3.4.21.9
SOURCE:	Bovine Enterokinase, expressed in *E. coli*

DESCRIPTION

Enterokinase is a specific protease that cleaves at the carboxyl side of Lysine residue when it is preceded by four Aspartic acids (Asp-Asp-Asp-Asp-Lys) and is not followed by Proline. Enterokinase can be used to remove the fusion tag of a protein or the N-terminal pro-sequence of a precursor protein that is genetically engineered to be activable with enterokinase.

Marvelgent's Recombinant Bovine Enterokinase is expressed in *E.coli*. The enzyme has been extensively purified and contains no detectable amount of contaminating proteases.

SPECIFICATION

Source	*E. coli*
Origin of species	Bovine
Molecular Weight	Theoretical MW: 25.8 kDa Apparent MW on SDS-PAGE: ~ 27 kDa
Specific Activity	≥ 5 Unit/μL
Unit Definition	One unit is defined as the amount of enzyme needed to cleave 0.5 mg of a fusion protein to 95% completion in 12 to16 hours at 25°C in 25 mM Tris-HCl, pH 8.0.
Storage Temperature	- 20°C or below.
Stability	The product is shipped with blue ice. It remains stable with no detectable loss of activity after one week at 25°C. Stable after several freeze-thaw cycles.

RECOMMENDED USAGE CONDITION

Briefly centrifuge vials at low speed before opening. Avoid repeated freeze/thaw cycles.

Reaction buffer:	25 mM Tris-HCl, pH 8.0
Target protein concentration:	0.1 – 1 mg/ml (total protein content: 0.5 – 1.0 mg)
Enterokinase content:	1 – 2 U
Temperature:	25°C
Incubation time:	Overnight or 12 h – 16 h.

CHEMICAL STABILITY

Enzymatic activity of Enterokinase may be affected in presence of the following agents:

Imidazole (>200 mM), NaCl (> 200 mM), or glycerin (> 5%).

If the sample contains any of these agents with the indicated amounts, it is necessary to decrease the concentration of the agent prior to enzyme digestion.

Proceed with one of the followings:

- To achieve optimum result, dialyze the sample against 25 mM Tris-HCl (pH 8.0) before digestion;
- If dialysis is undesirable, dilute the sample with 25 mM Tris-HCl (pH 8.0) to a final solution that contains <100mM imidazole, <50mM NaCl, and <5% glycerin.

  Maintain the ratio of EK to fusion protein at 1 U for every 0.5 mg fusion protein in the reaction;
- Alternatively, it is recommended to increase the amount of EK being used in the reaction and also to extend the reaction time.

INTENDED USE

For laboratory research only. Not intended for any human or animal diagnostic or therapeutic use.

RELATED PRODUCTS

14-RTI	ProteoSure™ Recombinant Bovine Aprotinin
14-RCPB	ProteoSure™ Recombinant Carboxypeptidase B
14-RHT	ProteoSure™ Recombinant Human Trypsin
14-RPT	ProteoSure™ Recombinant Porcine Trypsin
14-RCT	ProteoSure™ Recombinant Human Chymotrypsin
14-RKEX	ProteoSure™ Recombinant Kex2 Endoprotease
14-RPK	ProteoSure™ Recombinant Proteinase K
14-V8	ProteoSure™ Endoproteinase GluC, V8 Protease, Sequencing Grade
14-SRT	ProteoSure™ Modified Enhanced Recombinant Trypsin, Autolysis-Resistant, Sequencing Grade
14-SRCPB	ProteoSure™ Recombinant Carboxypeptidase B, Sequencing Grade
14-SRCT	ProteoSure™ Recombinant Chymotrypsin, Sequencing Grade
14-RSPA	ProteoSure™ Recombinant Protein A, Acid-, Alkali-stable
11-0211	ProteIndex™ Alkali-Tolerant Protein A Agarose 4 Fast Flow
11-0212-5X5ML	ProteIndex™ Alkali-Tolerant Protein A Agarose 4FF, Prepacked Cartridges