KRISHGEN BioSystems
OUR REAGENTS, YOUR RESEARCH

# KRISHZYME™ Enterokinase

## Catalog Number: KBENZ45

## Protein Description

**Source:**

Krishzyme Recombinant Enterokinase (also called enteropeptidase) is produced using yeast as the expression host. It is a serine protease that specifically cleaves proteins at the C-terminal side of the recognition sequence DDDDK↓X, where X is any amino acid except proline.

It is widely used in protein purification to remove affinity tags (e.g., His-tags, GST-tags) after recombinant protein expression.

**Expression Host:**

Yeast

**Purity:**

>90% as determined by SDS-PAGE quantitative densitometry by Coomassie Blue Staining.

**Endotoxin:**

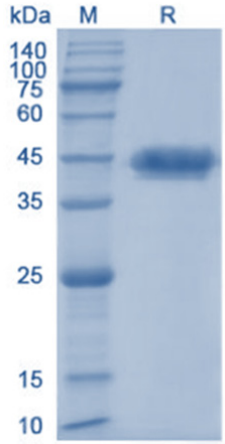
< 0.05 EU/1000 units as determined by the LAL method.

**Molecular Mass:**

The KRISHZYME™ Enterokinase has a calculated molecular mass of 22.11 kDa

**SDS-PAGE:**

Fig.1.




KDa Marker 10-140

Fig. 1. Purity analysis by SDS-PAGE Detection

**Concentration:**

> 30 KU / mg, 1mg of Krishzyme Recombinant bovine enterokinase can cut at least 1.5 gm fusion protein.

**Unit Definition:**

One Unit is defined as the amount of enzyme required to digest 50 ug fusion protein containing the digestion site within 16 hours using a reaction at 25°C and reaction buffer 50 mM Tris-HCl (pH 8.0),

**Formulation:**

KRISHZYME™ TEV Protease is supplied as a liquid containing 50 mM Tris-HCl, 50%Glycerol, pH 8.0.

**Reconstitution:**

Being an enzyme, the concentration may differ from lot to lot. We always recommend referring the accompanying data sheet to view the exact concentration and the recommended dilution schemata.

Centrifuge the vial at 4ºC before opening to recover the entire contents. Please contact us for any concerns or special requirements at +91-22-49198700 | Email: sales1@krishgen.com

**Storage:**

Store it under sterile conditions at -20ºC to -80ºC upon receiving for at least 12 months. It is recommended to aliquot the enzyme into smaller quantities for optimal storage. Avoid repeated freeze-thaw cycles.

**Application:**

Fusion Protein Cleavage
Protein Purification
Protein Digestion

**References:**

Recombinant enterokinase light chain with affinity tag: Expression from Saccharomyces cerevisiae and its utilities in fusion protein technology
SII Choi, HW Song, JW Moon… - Biotechnology and …, 2001 - Wiley Online Library

Enterokinase and recombinant enterokinase light chain (rEK L ) have been used widely to
cleave fusion proteins with the target sequence of (Asp) 4 -Lys.

Production of Recombinant Bovine Enterokinase Catalytic Subunit in Escherichia coli Using the Novel Secretory Fusion Partner DsbA
LA Collins-Racie, JM McColgan, KL Grant… - Bio/technology, 1995 - nature.com

A simple and efficient method for cytoplasmic production of human enterokinase light chain in E. coli
M Ebrahimifard, MM Forghanifard, A Yamchi… - AMB Express, 2022 - Springer

Functional Expression and Purification of Bovine Enterokinase Light Chain in Recombinant Escherichia coli
L Huang, H Ruan, W Gu, Z Xu, P Cen… - Preparative biochemistry …, 2007 - Taylor & Francis

Purification and determination of biological activity of a recombinant enterokinase
LK Phuong - Vietnam Journal of Biotechnology, 2021 - vjs.ac.vn

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