

## Recombinant Bovine Enterokinase Light Chain, His

### Information

<b>Gene ID</b>	
<b>Accession #</b>	
<b>Alternate Names</b>	Enterokinase, Serine Protease 7, Transmembrane Protease Serine 15
<b>Source</b>	Escherichia coli.
<b>M.Wt</b>	Approximately 28 kDa, a single non-glycosylated polypeptide chain containing 241 amino acids, with 6 × His at C-terminus.
<b>AA Sequence</b>	
<b>Appearance</b>	Sterile liquid.
<b>Stability &amp; Storage</b>	Use a manual defrost freezer and avoid repeated freeze-thaw cycles - 6 months from date of receipt, -20 to -70 °C as supplied - 3 months, -20 to -70 °C under sterile conditions after opening
<b>Formulation</b>	50 mM Tris-HCl, pH 8.0, 0.5 M NaCl and 50 % glycerol.
<b>Reconstitution</b>	
<b>Biological Activity</b>	
<b>Shipping Condition</b>	Gel pack.
<b>Handling</b>	Centrifuge the vial prior to opening.
<b>Usage</b>	For Research Use Only! Not to be used in humans.

### Components and Storage

Components	100IU	250IU	1kIU
Recombinant Bovine Enterokinase Light Chain, His	100IU	250IU	1kIU

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- 6 months from date of receipt, -20 to -70 °C as supplied
- 3 months, -20 to -70 °C under sterile conditions after opening

## Quality Control

Purity	
Endotoxin	Less than 1 EU/μg of rBoEKL, His as determined by LAL method.

## Description

Enterokinase (EK) is an amino protease existing in duodenum of mammal and is involved in digestion. It consists of a disulfide-linked 82 – 140 kDa heavy chain which anchors enterokinase in the intestinal brush border membrane and a 35 – 62 kDa light chain which contains the catalytic subunit. Additionally, both of the chains are derived from a single precursor that is cleaved by a trypsin-like protease. EK can specially recognize the amino acid sequence DDDDK, and digest the peptide bond after the lysine residue. rEK was report to be more effective than nature EK in cleaving recombinant proteins. Furthermore, the light chain possesses the whole enzyme activity of EK. rBoEK has the highest activity than EK of other species and is used wildly in biochemical applications. rBoEK with 6 × His-tag binds with Ni<sup>2+</sup> affinity chromatography and was designed for removing from digestion system.

## Reference

1. Yuan LDandHua ZC. 2002. Protein Expr Purif, 25: 300-4
2. Peng L, Zhong X, Ou J, et al. 2004. J Biotechnol, 108: 185-92
3. Light AandJanska H. 1991. J Protein Chem, 10: 475-80
4. Kubitzki T, Minor D, Mackfeld U, et al. 2009. Biotechnol J, 4: 1610-8.

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