Recombinant Bovine Enterokinase Light Chain, His-Tagged

Catalog # FL184

Product Specifications

Appearance	Sterile colorless liquid.
Purity	> 98% by SDS-PAGE or HPLC.
Endotoxin	< 0.1 EU/μg of rBoEK protein as determined by LAL method.
Expression System	Expressed in E. coli.
Species	Bovine
Tag	6*his Tag
Activity	≥ 40 KIU/mg.
Concentration	No less than 10mg/ml, The concentration for a specific batch as shown in the COA
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 25 °C in a buffer containing 25 mM Tris-HCl, pH 7.6, 50 mM NaCl, and 2 mM CaCl2
Formulation	A 0.2 μm filtered concentrated solution in 50 mM Tris-HCl, with 500 mM NaCl and 50% (v/v) Glycerol,pH 8.0.
Reconstitution	Before use this product, please read the direction below carefully. This vial must be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in a sterile aqueous buffer to an appropriate concentration. Stock solutions should be apportioned into working aliquots and stored at ≤ -20°C. Further dilutions should be made in appropriate buffered solutions.
Amino acid sequence	IVGGSDSREGAWPWVVALYFDDQQVCGASLVSRDWLVSAAHCVYGRNMEPSKWKAVLGLHMASNLTSPQIETRLIDQIVINPHYNKRRKNNDIAMMHLEMKVNYTDYIQPICLPEENQVFPPGRICSIAGWGALIYQGSTADVLQEADVPLLSNEKCQQQMPEYNITENMVCAGYEAGGVDSCQGDSGGPLMCQENNRWLLAGVTSFGYQCALPNRPGVYARVPRFTEWIQSFLHLEHHHHHH
Molecular weight	Approximately 28.0 kDa, a single non-glycosylated polypeptide chain containing 241 amino acids, with a 6×His tag at C-terminus.
Synonyms	Enterokinase, Serine Protease 7, Transmembrane Protease Serine 15
Stability & Storage	Shipped on wet ice. For long term storage, the product should be stored ≤ -20°C. Please avoid repeated freeze-thaw cycles after reconstitution. 6 months from date of receipt, -20 to -70°C as supplied. 1 month, 2 to 8°C under sterile conditions after reconstitution. 3 months, -20 to -70°C under sterile conditions after reconstitution.
Precautions	Recombinant Bovine Enterokinase Light Chain, His-Tagged is for research use only and not for use in diagnostic or therapeutic procedures.

Background

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. EK can specially recognize the amino acid sequence DDDDK, and digest the peptide bond after the lysine residue. Recombinant EK was reported to be more effective than nature EK in cleaving recombinant proteins. Furthermore, the light chain possesses the whole enzyme activity of EK. Recombinant bovine EK has higher activity than EK from other species and is used wildly in biochemical applications. rBoEK with a C-terminal 6×His tag is able to bind to Ni2+ affinity resin and then was removed from the digestion reaction system.

Advantage:

1)produced under GMP-like condition

2)good consistency between lots

3)high purity

4)safe and stable supply