

Recombinant Bovine Enterokinase

Cat. No. PRSS7-25B **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Bovine Enterokinase produced in E.coli is a single glycosylated polypeptide chain containing 235 amino acids and having a molecular mass of approximately 28 kDa.
Species	Bovine
Source	E.coli
Description	Enterokinase is a serine proteinase in the duodenum that plays a critical role in mammalian digestion. It converts trypsinogen into its active form trypsin, by cleaving its aminoterminal hexapeptide Val(Asp) ⁴ -Lys. More recently, the enterokinase has been shown to have a broad utility in cleaving fusion proteins produced in Escherichia coli. The enzyme is particularly suitable for this role because of its high degree of specificity, its tolerance to a wide range of reaction conditions, and the fact that its recognition sequence lies entirely on the aminoterminal side of the scissile bond. This enzymatic activity allows release of carboxyl-terminal fusion partners from fusion proteins without leaving unwanted amino acid residues on their amino termini.
Molecular Weight	Approximately 28 kDa, a single non-glycosylated polypeptide chain containing 235 amino acids.
Specific activity	≥ 2 × 10 ⁴ units/mg recombinant enterokinase.
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,

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	50 mM NaCl, and 2 mM CaCl ₂ .
Physical Appearance	Sterile liquid.
Formulation	50 mM Tris-HCl, pH 8.0, 0.5M NaCl and 50% glycerol.
Endotoxin	Less than 1EU/g of rbEK as determined by LAL method.
Storage	One year when stored at -20°C. Avoid repeated freeze/thaw cycles.

GENE INFORMATION

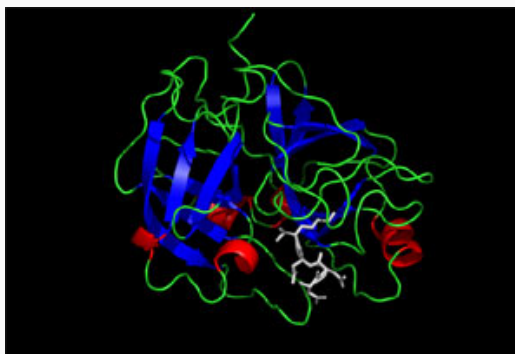
Gene Name	PRSS7 protease, serine, 7 (enterokinase) [Bos taurus]
Synonyms	PRSS7; EC 3.4.21.9; ENTK; Enterokinase; MGC133046; enterokinase; enteropeptidase; proenterokinase; Enteropeptidase precursor; Serine protease 7; human enterokinase; EC 3.4.21.9; protease, serine, 7; serine protease (enterokinase)
Gene ID	282009
mRNA Refseq	NM_174439
Protein Refseq	NP_776864
UniProt ID	P98072
Function	peptidase activity; scavenger receptor activity; serine-type endopeptidase activity

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Crystal structure of
Enteropeptidase with
an inhibitorprotease,
serine, 7
(enteropeptidase)



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