Recombinant enterokinase

Cat. No.: HY-E70202

CAS No.: 9014-74-8

Target: Ser/Thr Protease

Pathway: Metabolic Enzyme/Protease

Storage:

Pure form	-20°C	3 years
In solvent	-80°C	6 months
	-20°C	1 month

Recombinant enterokinase

BIOLOGICAL ACTIVITY

Description

Recombinant enterokinase (rEK) is a serine protease and functions as the physiological activator of trypsinogen. Recombinant enterokinase plays a role of turning trypsinogen to its active form trypsin[1].

In Vitro

Protocol

1) Dissolution: Recombinant enterokinase can be diluted with 25 mM Tris-HCl pH 8.0 to a solution containing 0.1 U per 1 μL;

2) Enzyme digestion: During enzyme digestion, the reaction system contains 0.05-0.1 mg of fusion protein (protein concentration: 0.1-1 mg/mL) and 0.1-0.2 U of recombinant enterokinase. Enzyme digestion at 25℃ overnight (Note: complete Enzyme digestion takes 16-24 hours).

Notes

1) Temperature: It is not recommended to perform enzyme digestion at 37℃ as non-specific enzyme digestion may occur.

2) Reaction condition: Under the conditions of >200 mM imidazole, or >200 mM NaCl, or >5% glycerol, the enzyme digestion effect will be affected. You can refer to the following recommended methods for enzyme digestion:

*Recommended method: To obtain ideal enzyme digestion results, please dialyze the sample into 25 mM Tris-HCl 8.0 buffer and then perform enzyme digestion. If dialysis is inconvenient, the sample can be diluted until the imidazole content is below 100 mM, the NaCl concentration is below 50 mM, and the glycerol concentration is below 5% for enzyme digestion. The ratio of enzyme dosage to protein remains unchanged (i.e. 1U enzyme digests 500 μg protein).

3) Effect of phosphate: Phosphate has a strong inhibitory effect on Enterokinase, and phosphate cannot exist in the enzyme digestion system.

4) Removal of enterokinase: This product is a recombinant enterokinase with high enzyme activity. If the cleavage protein is used in small amounts, it does not need to be removed. If you need to remove recombinant enterokinase later, you can use anion exchange resin (eg. DEAE-FF) to elute it. Recommended elution conditions are as follows: Equilibrium Buffer: 25 mM Tris-HCl pH 8.0, Elution buffer: 25 mM Tris-HCl pH 8.0 with 100 mM NaCl.

5) Effect: If the protease-cutting effect is not satisfactory, the amount of enzyme can be increased appropriately or the enzyme-cutting time can be appropriately extended.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Light A, et, al. The amino-terminal sequence of the catalytic subunit of bovine enterokinase. J Protein Chem. 1991 Oct;10(5):475-80.

Caution: Product has not been fully validated for medical applications. For research use only.

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