Enterokinase, Light Chain, Porcine, Cat. No. Z01003

DESCRIPTION

Enterokinase (EK) is a specific protease that cleaves a protein after lysine residue at its recognition site: Asp-Asp-Asp-Asp-Lys. Enterokinase will not work if the recognition site is followed by proline. If a fusion tag is placed at the N-terminus with an enterokinase site, enterokinase will be able to remove the fusion tag and to generate the protein exactly as you need without adding any unwanted residues. GenScript **Enterokinase, Light Chain, Porcine** is a highly purified recombinat porcine enterokinase (Light Chain) expressed from *P. Pastoris* GS115.

COMPONENTS

100 U Recombinant Enterokinase, 2 U/µl, 50 µl in all.

2 ml 1X EK Dilution/Storage Buffer

1 ml 10X EK cleavage buffer

10 µg Cleavage control protein, lyophilized powder on the bottom of the tube.

MOLECULAR WEIGHT

Theoretical MW: 21,880 Da; The apparent MW on SDS-PAGE: about 40,000 Da.

FORMULATION

GenScript Enterokinase, Light Chain, Porcine has been formulated using a proprietary technology, and the enzyme can be shipped at room temperature or stand at 37°C for 7 days without losing any activity.

UNIT DEFINITION

One unit is defined as the amount of enzyme needed to cleave 50 ug of fusion protein in 16 hours to 95% completion at 22°C in a buffer containing 25 mM Tris-HCl, pH 8.0.

GENERAL PROTOCOL

Preliminary small scale digestion is recommended in order to find an optimal cleavage condition and enzyme:target protein ratio. Scale up the reaction using the optimized conditions.

1. Make a serial dilution of Enterokinase (2 U/µl) in 8 tubes so that there is 1, 0.1, 0.01, 0.001, 0.0001, 0.00001, 0.000001 and 0 U enzymes in 8 different tubes, respectively.
2. Set up the digestion reactions in the 8 labeled tubes with 50 µg of protein in a total volume of 50 µl per tube.
3. Incubate the reactions at room temperature (20°C - 22°C) for 16 hours.
4. 10 µl from each tube is loaded on a SDS-PAGE to determine the extent of cleavage. (See Fig.1.).

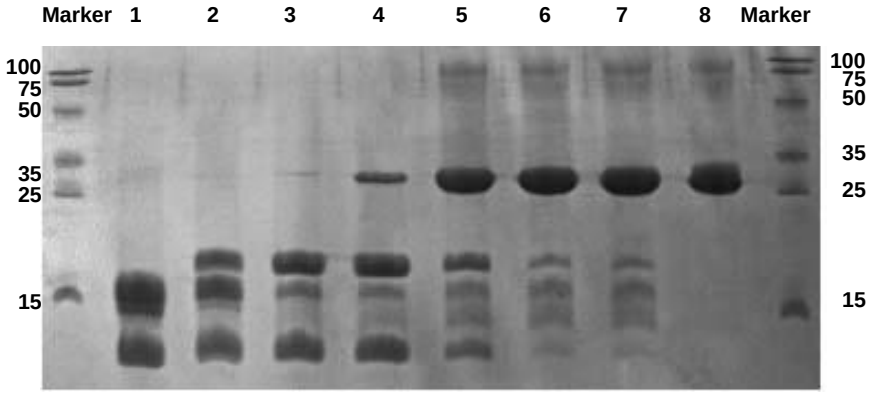

Fig.1. Each reaction contains 50 µg of purified IL-8 fusion protein and varying amount of GenScript rPorcine Enterokinase. The reactions were incubated at 22°C for 16 hours and analysed on a coomassie-stained SDS-PAGE (15%). Units of enzyme used per reaction is listed below:

Lane 1. 1 U	Lane 2. 0.1 U	Lane 3. 0.01 U	Lane 4. 0.001 U
Lane 5. 0.0001 U	Lane 6. 0.00001 U	Lane 7. 0.000001 U	Lane 8. 0 U

STORAGE

Store at -20°C after receiving.

For Research Use Only

GenScript Corporation
120 Centennial Ave., Piscataway, NJ 08854
Tel: 732-885-9188, 732-885-9688
Fax: 732-210-0262, 732-885-5878
Email: info@genscript.com
Web: http://www.genscript.com