

Recombinant human rhinovirus 3C protease, His-tagged

Cat. No. COP21 **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Species Virus

Source E.coli

Product Overview

Recombinant HRV-3C Protease contains a Histag, was expressed in E. coli, and purified in vitro using conventional chromatography techniques.

Description

HRV His-3C Protease encoded by human rhinovirus 14 is a highly purified recombinant cysteine protease with a His-tag. Substrate recognition and cleavage are likely to be dependent not only upon primary structural signals, but also upon the secondary and tertiary structures of the fusion protein as it has been demonstrated that the enzyme exhibits highest activity around neutral pH at temperature ranging from 22 to 37°C, even retaining robust activity at 4°C. Thus, cleavage can be performed at low temperature to enhance the stability of the target protein. The catalytic activity is insensitive to organic solvents (up to 10%); however, it can be strongly stimulated by high concentration of anions such as sulfate.

Form Solution in 50 mM Tris, 150 mM NaCl, 1 mM EDTA, 50% Glycerol, pH 8.0

Specification 2000U

Unit Definition

One unit will cleave >95% of 100 gHis•Tag fusion control protein in 50 mM Tris-HCl, 150 mM NaCl, pH 7.5 at 4°C for 16 h.

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Specifity	The enzyme recognizes the cleavage site:Leu-Glu-Val-Leu-Phe-Gln-↓-Gly-Pro.	
Molecularweight	22KDa	
10×Cleavage Buffer	500mM Tris-HCl, pH-7.0 (at 25°C), 1.5 M NaCl, 10 mM EDTA, 10 mM dithiothreitol. Chill to 5°C prior to use.	
Applications	The high specificity of HRV His-3C protease makes it an ideal tool for cleaving fusion proteins at definite cleavage sites. The fusion protein can be purified and cleaved by HRV His-3C to obtain the target protein. The recombinant HRV His-3C protease is easily removed by IMAC Ni-charged resin.	
Storage	Store at -20°C upon received. Avoid repeated freeze-thaw cycles.	
Background	Introduction	Rhinovirus is a species in the genus Enterovirus of the Picornaviridae family of viruses. There are 99 recognized types of Human rhinoviruses that differ according to their surface proteins. They are lytic in nature and are among the smallest viruses, with diameters of about only 30 nanometers. Other viruses such as smallpox and vaccinia are around 10 times larger at about 300 nanometers.
	Key words	Turbo3C(HRV 3C) Protease; 3C; HRV-3C