HRV-3C Protease Cleavage Enzyme, GST Tag, His Tag

Cat. No. 3CC-N3136

For Research Use Only

Source:

HRV-3C Protease Cleavage Enzyme, GST Tag, His Tag is a recombinant form of human rhinovirus (HRV) type 14 3C protease (22KDa on SDS-PAGE) produced in Escherichia coli cells at ACROBiosystems.

Application :

The high specificity of HRV-3C Protease Cleavage Enzyme, GST Tag, His Tag makes it an ideal tool for cleaving fusion proteins at definite cleavage sites. The fusion protein can be purified and cleaved by HRV-3C Protease Cleavage Enzyme, GST Tag, His Tag to obtain the target protein.

Unit Definition:

>1 Units/μg. One unit will cleave >95% of 100 μgcontrol fusion protein in 50 mM Tris-HCl, 150 mM NaCl, pH 7.5 at 4 ℃ for 16 h.

Kit Content:

1KU or 2.5KU	HRV-3C Protease Cleavage Enzyme, GST Tag, His Tag (lyophilized from 50mM Tris, 150mM NaCl, 1mM EDTA, 0.05% Tween20)
100 μg	Cleavage Control Protein (lyophilized from sterile PBS , pH 7.4)
25 ml	10X HRV 3C Cleavage Buffer (500mM Tris-HCl, pH 7.0, 1.5 M NaCl, 10 mM EDTA, 10 mM dithiothreitol)

Specificity:

The enzyme recognizes the cleavage site: Leu-Glu-Val-Leu-Phe-Gln-↓-Gly-Pro

Formulation:

Lyophilized from 0.22 μm filtered solution in 50 mM Tris, 150 mM NaCl, 1 mM EDTA, 0.05% Tween20. Contact us for customized product format or formulation.

Storage:

Store at -20℃ after reconstituted. Avoid repeated freeze-thaw cycles.

10×Cleavage Buffer:

500 mM Tris-HCl, pH 7.0 (at 25℃), 1.5 M NaCl, 10 mM EDTA, 10 mM dithiothreitol. Chill to 5℃ prior to use.

HRV-3C Cleavage Protocol:



Background:

Protease Recombinant is fusion protein of GST and human rhinovirus (HRV) type 14 3C protease. 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℃, even retaining robust activity at 4℃. 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.

References:

(1) Cordingley, M. G., et al. 1989, J. Virol. 63, 5037-5045.
(2) Q. May Wang,et al.2001, Virology 280, 80-86.