

## Product Data Sheet

## 3C protease Protein, Human rhinovirus 14 (GST)

Cat. No.:	HY-P701921
Synonyms:	Genome polyprotein
Species:	Virus
Source:	E. coli
Accession:	P03303 (G1538-Q1719)
Gene ID:	1461213
Molecular Weight:	

PROPERTIES	
Appearance	Solution.
Formulation	Supplied as a 0.22 $\mu m$ filtered solution of 50 mM Tris-HCl, pH7.5, 200 mM NaCl, 20% glycerol.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconsititution	Please use rapid thawing with running water to thaw the protein.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

DESCRIPTION	
Background	The 3C protease protein participates in the assembly of an icosahedral capsid with pseudo T=3 symmetry, alongside capsid proteins VP2 and VP3. This capsid, measuring 300 Angstroms in diameter, consists of 60 copies of each capsid protein and encloses the viral positive strand RNA genome. Capsid protein VP1 predominantly shapes the vertices of the capsid and interacts with host ICAM1 to facilitate virion attachment to target host cells, leading to virion internalization. The entry process likely involves tyrosine kinases. Following receptor binding, the capsid undergoes conformational changes, resulting in the externalization of the N-terminus of capsid protein VP1, containing an amphipathic alpha-helix, and capsid protein VP4. Together, they create a pore in the host membrane, facilitating the translocation of the viral genome into the host cell cytoplasm. Once the genome is released, the channel undergoes constriction.

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

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