

SARS Plpro/papain-like protease Protein (His-Avi)

Cat. No.:	HY-P77831
Synonyms:	Replicase polyprotein 1a; pp1a; nsp1; PL2-PRO; PL-PRO; Papain-like Protease; Plpro
Species:	Virus
Source:	E. coli
Accession:	POC6U8 (E1-I314)
Gene ID:	/
Molecular Weight:	Approximately 38.6 kDa

PROPERTIES

Appearance	Solution.
Formulation	Supplied as a 0.22 µm filtered solution of 20 mM Tris, 100 mM NaCl, 10% glycerol, pH 7.8.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	N/A.
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 SARS Plpro/papain-like protease protein emerges as a multifunctional orchestrator in the intricate landscape of transcription and replication of viral RNAs, wielding crucial proteinases for polyprotein cleavages. Operating strategically, it impedes host translation by interacting with the 40S ribosomal subunit, and the ensuing nsp1-40S ribosome complex induces an endonucleolytic cleavage near the 5'UTR of host mRNAs, effectively targeting them for degradation. Notably, viral mRNAs deploy a defense mechanism against this degradation, as they are not susceptible to nsp1-mediated endonucleolytic RNA cleavage, owing to the protective presence of a 5'-end leader sequence. Through the suppression of host gene expression, nsp1 facilitates efficient viral gene expression within infected cells while evading host immune responses. Additionally, the protein may disrupt nuclear pore function by binding and displacing host NUP93. The multifaceted functionalities of SARS Plpro highlight its pivotal role in shaping the viral life cycle and evading host defenses.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA