Recombinant SARS-CoV-2 Papain-Like Protease Protein

Catalog No. PKSR030472

Note: Centrifuge before opening to ensure complete recovery of vial contents.

Description	
Synonyms	Papain-like Protease;PLpro;PL-PRO;pp1a;Replicase polyprotein 1a
Species	SARS-CoV-2
Expression Host	E.coli
Sequence	Glu1564-Lys1878
Accession	QHD43415.1
Calculated Molecular Weight	35.8 kDa
Observed molecular weight	34 kDa
Tag	None
Bioactivity	Not validated for activity
Properties	
Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μ g of the protein as determined by the LAL method.
Storage	Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.
Shipping	This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel packs. Upon receipt, store it immediately at $< -20^{\circ}$ C.
Formulation	Supplied as a 0.2 μM filtered solution of 20mM Tris-HCl, 10 mM 2-Mercaptoethanol, 20% Glycerol, pH 7.5.
Reconstitution	Not Applicable
Data	

kDa	MK	R
120 90		
60		
40		
		-
30		
20	-	
14	-	
14		

> 95 % as determined by reducing SDS-PAGE.

Background

Replication of severe acute respiratory syndrome (SARS) coronavirus (SARS-CoV) requires proteolytic processing of the replicase polyprotein by two viral cysteine proteases, a chymotrypsin-like protease (3CLpro) and a papain-like protease (PLpro). These proteases are important targets for development of antiviral drugs that would inhibit viral replication and reduce mortality associated with outbreaks of SARS-CoV. PLpro is a cysteine protease located within the non-structural protein 3 (NS3) section of the viral polypeptide. PLPro activity is required to process the viral polyprotein into functional,

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mature subunits; specifically, PLPro cleaves a site at the amino-terminus of the viral replicase region. In addition to its role in viral protein maturation, PLPro possesses a deubiquitinating and deISGylating activity. In vivo, this protease antagonizes innate immunity by inhibiting IRF3-induced production of type I interferons.