

Recombinant SARS-CoV-2 Papain-Like Protease Protein

Catalog Number: PKSR030472

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

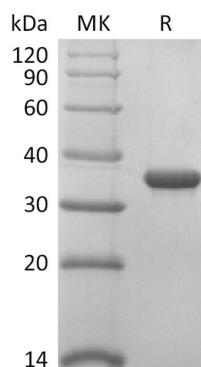
Description

Species	SARS-CoV-2
Source	E.coli-derived SARS-CoV-2 Papain-Like Protease protein Glu1564-Lys1878
Calculated MW	35.8 kDa
Observed MW	34 kDa
Accession	QHD43415.1
Bio-activity	Not validated for activity

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Concentration	Subject to label value.
Endotoxin	< 1.0 EU per µg 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°C.
Formulation	Supplied as a 0.2 µM filtered solution of 20mM Tris-HCl, 10 mM 2-Mercaptoethanol, 20% Glycerol, pH 7.5.

Data



> 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, 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.

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