# Recombinant SARS-CoV-2 Papain-Like Protease Protein

**Catalog Number:PKSR030472** 1 Publications

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

## Description

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|---|---|
| **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 |

## Properties

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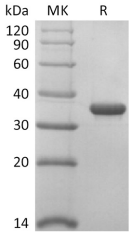
|---|---|
| **Purity** | > 95 % as determined by reducing SDS-PAGE. |
| **Endotoxin** | < 1.0 EU per µg of the protein as determined by the LAL method. |
| **Storage** | Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles. |
| **Shipping** | This product is provided as liquid. It 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. |
| **Reconstitution** | Not Applicable |

## 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.