

Active Recombinant COVID-19 Plpro protein

Cat. No. Plpro-11V **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant 2019-nCoV Papain-like Protease is produced by our E. coli expression system and the target gene encoding Glu1564-Lys1878 is expressed.
Species	Sars-CoV-2
Source	E.coli
ProteinLength	Glu1564-Lys1878
Description	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 SARSCoV. 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.
Form	Supplied as a 0.2 µm filtered solution of 20mM Tris-HCl, 10 mM 2-Mercaptoethanol, 20% Glycerol, pH 7.5.

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Bio-activity	Measured by its ability to cleave a fluorogenic peptide substrate, (EEDANS)RELNGGAPI(K-DABCYL)S (Synthetic). The specific activity is >2000pmol/min/mg.
Molecular Mass	34kDa, reducing conditions.
Purity	Greater than 90% as determined by reducing SDS-PAGE.
Storage	Store at <-20°C, stable for 6 months after receipt. Please minimize freeze-thaw cycles.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 µg/µl. Centrifuge the vial at 4°C before opening to recover the entire contents.
Shipping	The product is shipped on dry ice/polar packs. Upon receipt, store it immediately at the temperature listed below.

GENE INFORMATION

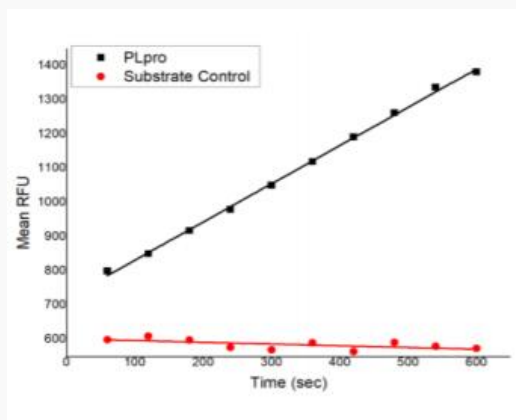
Gene Name	ORF1ab
Official Symbol	ORF1ab
Synonyms	Papain-like Protease; PLpro; PL-PRO; pp1a; Replicase polyprotein 1a
Gene ID	43740578
Protein Refseq	YP_009724389.1
UniProt ID	P0DTC1

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Enzyme activity of Plpro-11V



SDS-PAGE of Plpro- 11V

