



## Synonym

Papain-like Protease, Replicase polyprotein 1a, ORF1a polyprotein, pp1a, 1a, PL-PRO, Plpro

## Source

SARS-CoV-2 Papain-like Protease, His Tag (PAE-C5148) is expressed from E. coli cells. It contains AA Glu 746 - Lys 1060 (Accession # [YP\\_009725299.1](#)). Predicted N-terminus: Met

## Molecular Characterization

Poly-his Plpro(Glu 746 - Lys 1060)  
YP\_009725299.1

This protein carries a polyhistidine tag at the N-terminus.

The protein has a calculated MW of 37.6 kDa. The protein migrates as 35-37 kDa under reducing (R) condition (SDS-PAGE).

## Endotoxin

Less than 1.0 EU per µg by the LAL method.

## Purity

>95% as determined by SDS-PAGE.

## Formulation

Supplied as 0.2 µm filtered solution in 50 mM HEPES, 300 mM NaCl, pH 7.5, 11% Trehalose with glycerol as protectant.

Contact us for customized product form or formulation.

## Shipping

*This product is supplied and shipped with dry ice, please inquire the shipping cost.*

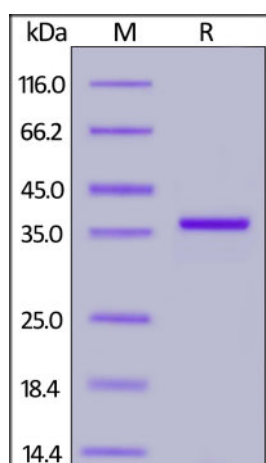
## Storage

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

- The product MUST be stored at -70°C or lower upon receipt;
- -70°C for 3 months under sterile conditions.

## SDS-PAGE



SARS-CoV-2 Papain-like Protease, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

## Bioactivity

Measured by its ability to convert the substrate Dabcyl-FRLKGGAPIKGV-Edans. The specific activity is >2500 pmol/min/mg (QC tested).

## Background

New coronavirus is a single-stranded RNA positive-strand envelope type B coronavirus. Similar to the other two coronaviruses that cause SARS (Severe Acute Respiratory Syndrome) and MERS (Middle East Respiratory Syndrome), its genome encodes non-structural, structural, and accessory proteins. Non-structural proteins include 3-chymotrypsin-like protease (3CLpro), papain-like protease, helicase, and RNA-dependent RNA polymerase (RNA -dependent RNA polymerase).

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# SARS-CoV-2 (COVID-19) Papain-like Protease Protein, His Tag (active enzyme)

Catalog # PAE-C5148



(RdRp). Structural proteins include spike glycoproteins. Papain in coronavirus is the same as 3CLpro. This enzyme operates on no less than 11 cleavage sites on the large polyprotein 1ab. Processing of polyproteins translated from viral RNA is essential. Therefore, the activity of this enzyme will prevent virus imitation.

## Clinical and Translational Updates

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