

**SARS-CoV-2 (COVID-19) Papain-like Protease Protein, His Tag**

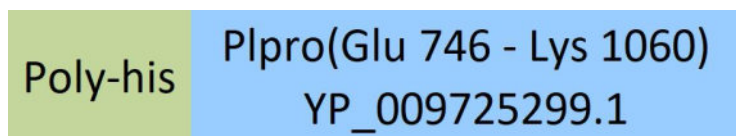
Catalog # AMS.PAE-C5148-100ug; -1mg

**Synonym**

Papain-like Protease, Replicase polyprotein 1a, ORF1a polyprotein, pp1a, 1a, PL-PRO, Plpro, COVID-19

**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**

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**

Delivered as bulk protein in a 0.2 µm filtered solution of 50 mM HEPES, 300 mM NaCl, 1 mM TCEP, pH7.5 with glycerol as protectant.

Contact us for customized product form or formulation.

**Storage**

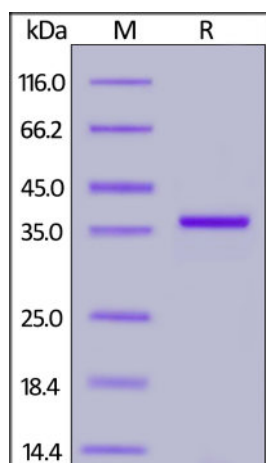
*Please avoid repeated freeze-thaw cycles.*

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.

**Shipping**

*This product is supplied as sterile liquid solution and shipped frozen with dry ice, please inquire the shipping cost.*

**SDS-PAGE**

SARS-CoV-2 Papain-like Protease, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight 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.

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## 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 (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, press this The activity of this enzyme will prevent virus imitation.

## References

- (1) [Linlin Zhang, et al. Science. 2020. eabb3405.](#)

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