

SARS-CoV PLPro Antibody (Papain-like protease)

Cat. # AB602

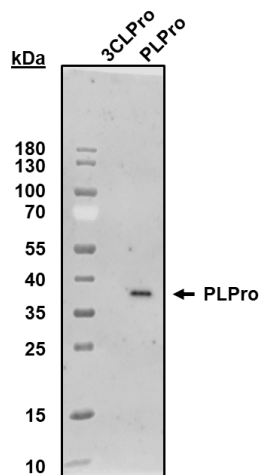
Background: Within the last two decades, SARS-CoV and MERS coronaviruses emerged as global health concerns causing severe acute respiratory syndromes. In December 2019, a novel coronavirus (SARS-CoV-2) was identified in Wuhan, Hubei province in China (1-3). The SARS-CoV genome encodes several proteases including papain-like protease 1 (PLP1; PLPro); this key enzyme along with 3CL-protease and PLP2 (PLPro2) drives the early stage of infection by processing a large viral polypeptide into functional enzymes (4). SARS-CoV PLPro shares 82% identity with PLPro from SARS-CoV-2. Therefore, this antibody targeting SARS-CoV PLPro is a valuable diagnostic tool for PLPro expressed by SARS CoV-2.

Specificity/Applications

Species Cross Reactivity:	SARS-CoV (detects recombinant PLPro as a 35 kDa protein)
Host:	Chicken
Applications:	Western Blotting (recommended antibody dilution 1 µg/ml)
Buffer:	Phosphate Buffer Saline Buffer with 10% glycerol
Storage:	Store at -20°C. <i>Do not aliquot the antibody.</i>

Immunization

Polyclonal antibodies were produced by immunizing chickens with recombinant protein SARS-CoV PLPro corresponding to residues 1-315 of PLPro. Antibodies are purified from egg yolks.



The indicated proteins (100 ng) were separated on 10-20% gradient SDS-PAGE gel and transferred to nitrocellulose. The membrane was probed with anti-PLPro (1 µg/ml) and visualized using a rabbit anti-chicken HRP-conjugated antibody and chemiluminescence. Molecular weight markers are indicated on the left.

All products are for research use only • Not intended for human or animal diagnostic or therapeutic uses
Copyright © 2007 LifeSensors, Inc. All Rights Reserved

References

1. Wang D, Hu B, Hu C, et al. Clinical Characteristics of 138 Hospitalized Patients With 2019 Novel Coronavirus–Infected Pneumonia in Wuhan, China. *JAMA*. 2020;323(11):1061.
2. Zhou P, Yang X-L, Wang X-G, et al. A pneumonia outbreak associated with a new coronavirus of probable bat origin. *Nature*. 2020;579(7798):270–273.
3. Zhu N, Zhang D, Wang W, et al. A Novel Coronavirus from Patients with Pneumonia in China, 2019. *N. Engl. J. Med.* 2020;382(8):727–733.
4. Hilgenfeld R. From SARS to MERS: crystallographic studies on coronaviral proteases enable antiviral drug design. *FEBS J.* 2014;281(18):4085–4096.

All products are for research use only • Not intended for human or animal diagnostic or therapeutic uses
Copyright © 2007 LifeSensors, Inc. All Rights Reserved