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SARS-CoV-2 (COVID-19) NSP15 Antibody

Infectious Disease, COVID-19
Catalog # ASC12215

Product Information

Application	WB, E
Primary Accession	P0DTC1
Other Accession	6VWW_B
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Clone Names	NSP15
Calculated MW	489989
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	WB: 0.5-1 µg/mL Antibody validated: SARS-CoV-2 (COVID-19) NSP15 antibody can detect 2 ng of free peptide at 1 µg/mL in ELISA. It can detect SARS-CoV-2 NSP15 recombinant protein by ELISA and WB. All other applications and species not yet tested.

Additional Information

Gene ID	43740578
Other Names	Uridylate-specific endoribonuclease, NendoU, NSP15, Non-structure protein 15
Reconstitution & Storage	SARS-CoV-2 (COVID-19) NSP15 antibody can be stored at 4˚C for three months and -20˚C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	SARS-CoV-2 (COVID-19) NSP15 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	R1A
Function	[Replicase polyprotein 1a]: Multifunctional protein involved in the transcription and replication of viral RNAs. Contains the proteinases responsible for the cleavages of the polyprotein.
Cellular Location	[Host translation inhibitor nsp1]: Host cytoplasm [Papain-like protease nsp3]: Host endoplasmic reticulum membrane; Multi-pass membrane protein. Note=Localizes in virally-induced cytoplasmic double-membrane vesicles

(DMV) [3C-like proteinase nsp5]: Host cytoplasm. Host Golgi apparatus. Host nucleus. Host extracellular space. Note=Secreted into the host extracellular space through host caspase-activated GSDME [Non-structural protein 7]: Host cytoplasm, host perinuclear region {ECO:0000250|UniProtKB:P0C6X9}. Host cytoplasm. Host endoplasmic reticulum. Note=nsp7, nsp8, nsp9 and nsp10 are localized in cytoplasmic foci, largely perinuclear. Late in infection, they merge into confluent complexes. {ECO:0000250|UniProtKB:P0C6X9} [RNA-capping enzyme subunit nsp9]: Host cytoplasm, host perinuclear region {ECO:0000250|UniProtKB:P0C6X9}. Host cytoplasm Host endoplasmic reticulum. Note=nsp7, nsp8, nsp9 and nsp10 are localized in cytoplasmic foci, largely perinuclear. Late in infection, they merge into confluent complexes {ECO:0000250|UniProtKB:P0C6X9}

Background

Coronavirus disease 2019 (COVID-19), formerly known as 2019-nCoV acute respiratory disease, is an infectious disease caused by SARS-CoV-2, a virus closely related to the SARS virus (1). The disease is the cause of the 2019–20 coronavirus outbreak (2). The structure of 2019-nCoV consists of the following: a spike protein (S), hemagglutinin-esterease dimer (HE), a membrane glycoprotein (M), an envelope protein (E) a nucleoclapid protein (N) and RNA. NSP15 is a Mn2+-dependent, uridylate-specific enzyme, which leaves 2'-3'-cyclic phosphates 5' to the cleaved bond.

References

Gorbalenya. bioRxiv: 2020.;Hui et al. Int J Infect Dis. 2020;91:264-266.;;;;;;;;;

Images

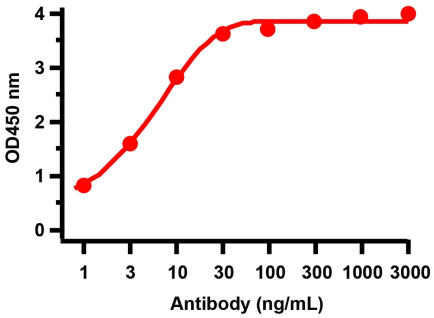


Figure 1 ELISA Validation with SARS-CoV-2 (COVID-19) NSP15 Protein
Antibodies: SARS-CoV-2 (COVID-19) NSP15 Antibody, ASC12215. A direct ELISA was performed using SARS-CoV-2 NSP15 recombinant protein (10-420) as coating antigen and the anti-SARS-CoV-2 (COVID-19) NSP15 antibody as the capture antibody. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:20000 dilution. Detection range is from 1 ng/mL to 3000 ng/mL

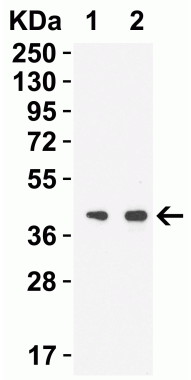


Figure 2 Western Blot Validation with SARS-CoV-2 (COVID-19) NSP15 Protein
Loading: 30 ng per lane of SARS-CoV-2 (COVID-19) NSP15 recombinant protein (10-420). Antibodies: SARS-CoV-2 (COVID-19) NSP15, ASC12215, 1h incubation at RT in 5% NFDM/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution. Lane 1: 0.5 µg/mL and Lane 2: 1 µg/mL

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.