

Anti-SARS-CoV-2 NSP5 Antibody

CATALOG NO.: A2257-100 (100 µg)

BACKGROUND DESCRIPTION: Severe acute respiratory syndrome coronavirus-2 (SARS CoV-2) is an infectious disease caused by a novel beta-coronavirus called SARS-CoV-2. The SARS-CoV-2 is a large enveloped, positive-sense RNA with a genome about ~ 30 kb long. The genome encodes 14 open reading frames, of which ORF1a and ORF1b are translated to 2 polyproteins. The 2 polyproteins undergo autoproteolysis to yield 16 non-structural proteins (NSP1-16). The NSP5 protein, also known as 3C-like main protease (3CL^{pro}) or main protease (M^{pro}) is a cysteine protease that plays an important role in viral protein synthesis. It possesses a cysteine-histidine catalytic dyad at its active site. The protease activity of NSP5 enables cleaving of the coronavirus polyprotein at 11 distinct sites. As a result of this cleaving activity, multiple mature and intermediate non-structural viral proteins are formed. NSP5 SARS-CoV-2 shares a sequence identity of 96.1% and sequence similarity of 99.7% with the SARS-CoV NSP5. NSP5 consists of 3 domains; domain I and II, both form β -barrel chymotrypsin-like fold that is essential for its protease activity, and domain III, which is required for the oligomerization of the protein. Since NSP5 plays a critical role in the processing of coronavirus polyproteins, it is considered a potential drug target for the treatment of coronavirus infections.

ALTERNATE NAMES: NSP5, 3C-like proteinase, 3CL-PRO, 3CLp, Main protease, Mpro, Non-structural protein 5, SARS coronavirus main proteinase, Replicase polyprotein 1a

ANTIBODY TYPE: Polyclonal

HOST/ISOTYPE: Rabbit / IgG

IMMUNOGEN: Recombinant SARS-CoV-2 NSP5

MOLECULAR WEIGHT: 33 kDa

SPECIFICITY: Recognizes SARS-CoV-2 NSP5 protein

FORM: Liquid

FORMULATION: In PBS, pH 7.4, 50% glycerol, 0.05% proclin 300

SPECIES REACTIVITY: Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)

STORAGE CONDITIONS: Store at -20 to -80°C. Avoid repeated freeze/thaw cycles

This information is only intended as a guide. The optimal dilutions must be determined by the user

RELATED PRODUCTS:

Anti-SARS-CoV-2 Spike S1 Antibody (Clone# 4C6) (A3001)

Anti-CoV-2 & SARS-CoV S1 Antibody (Clone# CR3022) (A2103)

Anti-SARS-CoV-2 NP Antibody (Clone# 11D5) (A2092)

Anti-SARS-CoV-2 Spike S1 Antibody (A3000)

FOR RESEARCH USE ONLY! Not to be used on humans.