



Goat anti-Spike protein- S1 Domain (aa672-682) Antibody

Peptide-affinity purified goat antibody Catalog # AF4552a

Product Information

Primary Accession PODTC2

Other Accession NC_045512.2/MN908947

Reactivity Human Host Goat Clonality Polyclonal **Clone Names** SARS-CoV-2 **Calculated MW** 141178

Additional Information

Gene ID 43740568

Other Names Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) isolate

Wuhan-Hu-1

Format Supplied at 0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5%

bovine serum albumin. Aliquot and store at -20°C. Minimize freezing and

thawing.

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store Storage

at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions Goat anti-Spike protein- S1 Domain (aa672-682) Antibody is for research use

only and not for use in diagnostic or therapeutic procedures.

Protein Information

S {ECO:0000255 | HAMAP-Rule:MF_04099} Name

Function [Spike protein S1]: Attaches the virion to the cell membrane by interacting

> with host receptor, initiating the infection. The major receptor is host ACE2 (PubMed:32142651, PubMed:32155444, PubMed:33607086). When S2/S2' has been cleaved, binding to the receptor triggers direct fusion at the cell membrane (PubMed:34561887). When S2/S2' has not been cleaved, binding to the receptor results in internalization of the virus by endocytosis using host

TFRC and GRM2 and leading to fusion of the virion membrane with the host

endosomal membrane (PubMed:32075877, PubMed:32221306,

PubMed:34903715, PubMed:36779763). Alternatively, may use NRP1/NRP2 (PubMed:33082294, PubMed:33082293) and integrin as entry receptors (PubMed:35150743). The use of NRP1/NRP2 receptors may explain the tropism of the virus in human olfactory epithelial cells, which express these molecules at high levels but ACE2 at low levels (PubMed:<u>33082293</u>). The stalk domain of S contains three hinges, giving the head unexpected orientational freedom (PubMed:<u>32817270</u>).

Cellular Location

Virion membrane {ECO:0000255 | HAMAP-Rule:MF_04099, ECO:0000269 | PubMed:32979942}; Single-pass type I membrane protein {ECO:0000255|HAMAP-Rule:MF 04099, ECO:0000269|PubMed:34504087}. Host endoplasmic reticulum-Golgi intermediate compartment membrane {ECO:0000255 | HAMAP-Rule:MF_04099, ECO:0000269 | PubMed:34504087}; Single- pass type I membrane protein {ECO:0000255|HAMAP-Rule:MF 04099}. Host cell membrane {ECO:0000255 | HAMAP-Rule:MF 04099, ECO:0000269 | PubMed:34504087}; Single-pass type I membrane protein {ECO:0000255|HAMAP-Rule:MF 04099}. Note=Accumulates in the endoplasmic reticulum-Golgi intermediate compartment, where it participates in virus particle assembly. Some S oligomers are transported to the host plasma membrane, where they may mediate cell-cell fusion (PubMed:34504087). An average of 26 +/-15 S trimers are found randomly distributed at the surface of the virion (PubMed:32979942) {ECO:0000255|HAMAP-Rule:MF 04099, ECO:0000269|PubMed:32979942, ECO:0000269 | PubMed:34504087}

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