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# Anti-Spike RBD Reference Antibody (Casirivimab)

Recombinant Antibody
Catalog # APR10007

## Product Information

| | |
|---|---|
| **Application** | Functional assay, Kinetics (SPR), Kinetics (BLI), FACS, E, FTA |
| **Primary Accession** | P0DTC2 |
| **Reactivity** | Human |
| **Clonality** | Monoclonal |
| **Isotype** | IgG1-LALA |
| **Calculated MW** | 141178 |

## Additional Information

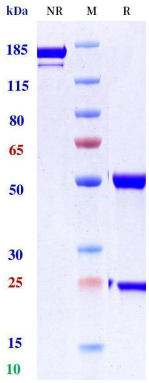
| | |
|---|---|
| **Target/Specificity** | Spike RBD |
| **Endotoxin** | |
| **Conjugation** | Unconjugated |
| **Expression system** | CHO |
| **Format** | Purified monoclonal antibody supplied in PBS, pH6.0, without preservative.This antibody is purified through a protein A column. |

## Protein Information

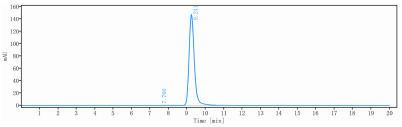
| | |
|---|---|
| **Name** | S {ECO:0000255\|HAMAP-Rule:MF_04099} |
| **Function** | [Spike protein S1]: Attaches the virion to the cell membrane by interacting with host receptor, initiating the infection. The major receptor is host ACE2 (PubMed:32142651, PubMed:32155444, PubMed:33607086). When S2/S2' 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:33082293). Uses also ASGR1 as an alternative receptor in an ACE2-independent manner (PubMed:34837059). The stalk domain of S contains three hinges, giving the head unexpected orientational freedom (PubMed:32817270). |
| **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}

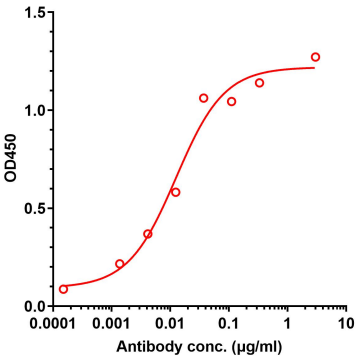
## Images




Anti-Spike RBD Reference Antibody (Casirivimab) on SDS-PAGE under reducing (R) condition. The purity of the protein is greater than 95%.



The purity of Anti-Spike RBD Reference Antibody (Casirivimab) is 99.1%, determined by SEC-HPLC.




Immobilized B1-617-3-India-His at 2 μg/mL can bind Casirivimab, EC50= 0.01256 μg/mL.

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