

SARS-CoV-2 COVID 19 Omicron (B.1.1.529) variant Spike RBD Coronavirus ELISA Kit | COVID-19 elisa kit

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CATALOG #
AAA258576

REACTIVITY
SARS-CoV-2

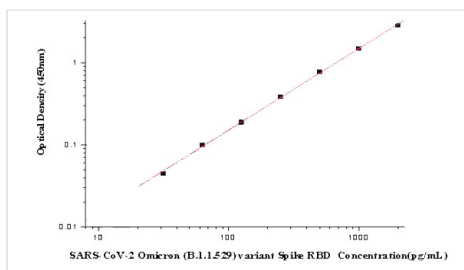
PRODUCT SYNONYMS

COVID 19 Omicron (B.1.1.529) variant Spike RBD Coronavirus; SARS-CoV-2 Omicron (B.1.1.529) variant Spike RBD ELISA Kit; 2019 Novel Coronavirus; Coronavirus; CoV; COVID-19 virus; HCoV-2; Human Coronavirus 2019; SARS2; SARS-CoV-2; Severe acute respiratory syndrome coronavirus 2; Omicron (B.1.1.529) variant Spike RBD; COVID-19 elisa kit

PRODUCT SPECIFICATIONS

Reactivity	SARS-CoV-2
Specificity	Recognizes both recombinant and natural SARS-CoV-2 Coronavirus spike
Assay Type	Sandwich
Sensitivity	< 49 pg/mL
Intra-assay Precision	Three samples of known concentration were tested twenty times on one plate to assess intra-assay precision.
Inter-assay Precision	Three samples of known concentration were tested in five separate assays to assess inter-assay precision.
Preparation and Storage	Unopened Kit: Store at 2-8 degree COpened/Reconstituted Reagents: Please refer to CoA

IMAGES



Standard Curve (Sample)

ADDITIONAL INFORMATION

Related Product Information for COVID-19 elisa kit	Background: The spike (S) glycoprotein of coronaviruses contains protrusions that will only bind to certain receptors on the host cell. Known receptors bind S1 are ACE2, angiotensin-converting enzyme 2; DPP4, dipeptidyl peptidase-4; APN, aminopeptidase N; CEACAM, carcinoembryonic antigen-related cell adhesion molecule 1; Sia, sialic acid; O-ac Sia, O-acetylated sialic acid. The spike is essential for both host specificity and viral infectivity. The term 'peplomer' is typically used to refer to a grouping of heterologous proteins on the virus surface that function together. The spike (S) glycoprotein of coronaviruses is known to be essential in the binding of the virus to the host cell at the advent of the infection process. It's been reported that 2019-nCoV can infect the human respiratory epithelial cells through interaction with the human ACE2 receptor. The spike protein is a large type I transmembrane protein containing two subunits, S1 and S2. S1 mainly contains a receptor binding domain (RBD), which is responsible for recognizing the cell surface receptor. S2 contains basic elements needed for the membrane fusion. The S protein plays key parts in the induction of neutralizing-antibody and T-cell responses, as well as protective immunity. The main functions for the Spike protein are summarized as: Mediate receptor binding and membrane fusion; Defines the range of the hosts and specificity of the virus; Main component to bind with the neutralizing antibody; Key target for vaccine design; Can be transmitted between different hosts through gene recombination or mutation of the receptor binding domain (RBD), leading to a higher mortality rate. Principle of the Assay: The principle of this ELISA kit is based on the solid phase sandwich enzyme immunoassay technique. A monoclonal antibody specific for SARS-CoV-2 Spike RBD has been pre-coated onto well plate strips. Standards and samples are added to the wells and SARS-CoV-2 Spike RBD present in the sample is bound by the immobilized antibody. After incubation the wells are washed and a horseradish peroxidase conjugated anti-SARS-CoV-2 Spike RBD antibody is added, producing an antibody-antigen-antibody "sandwich complex". Following a wash to remove any unbound antibody a TMB substrate solution is loaded and color develops in proportion to the amount of SARS-CoV-2 Spike RBD bound. The reaction is stopped by the addition of a stop solution and the intensity of the color can be measured at 450 nm (See schematics below). Intended Uses: The kit has been verified by high purity SARS-CoV-2 B.1.1.529 (Omicron) Spike RBD Protein (Cat#MBS8123635).
References	Shen S, et al. (2007) Expression, glycosylation, and modification of the spike (S) glycoprotein of SARS CoV. Methods Mol Biol. 379: 127-35. Du L, et al. (2009) The spike protein of SARS-CoV--a target for vaccine and therapeutic development. Nat Rev Microbiol. 7 (3): 226-36. Xiao X, et al. (2004) The SARS-CoV S glycoprotein. Cell Mol Life Sci. 61 (19-20): 2428-30.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com

Online datasheet: <https://stage.aaabiotech.com/covid-19-elisa-kits/covid-19-omicron-b-1-1-529-variant-spike-rbd-coronavirus/258576>