

Active Recombinant COVID-19 Spike RBD Protein, His Tag (BA.2/Omicron), His-tagged

Cat. No. Spike-4653V **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant COVID-19 Protein, His Tag (BA.2/Omicron)(Arg 319 - Lys 537), fused with His tag, was expressed in HEK293.
Species	Sars-CoV-2
Source	HEK293
ProteinLength	Arg 319 - Lys 537
Form	Lyophilized from 0.22 µm filtered solution in PBS, pH7.4. Normally trehalose is added as protectant before lyophilization.
Bio-activity	Immobilized Anti-SARS-CoV-2 Spike RBD Antibody, Chimeric mAb, Human IgG1 at 1 µg/mL (100 µL/well) can bind SARS-CoV-2 Spike RBD, His Tag (BA.2/Omicron) with a linear range of 4-31 ng/mL. Immobilized SARS-CoV-2 Spike RBD, His Tag (BA.2/Omicron) at 1 µg/mL (100 µL/well) can bind Human ACE2, Fc Tag with a linear range of 0.4-13 ng/mL. Serial dilutions of Anti-SARS-CoV-2 Spike RBD Neutralizing Antibody, Chimeric mAb, Human IgG1 (AM122) (Trehalose free) can inhibit SARS-CoV-2 Spike RBD, His Tag (BA.2/Omicron) (MALS verified) from binding Human ACE2. The half maximal inhibitory concentration (IC₅₀) is 1.844 µg/mL. Serial dilutions of Anti-SARS-CoV-2 Spike RBD Broadly Neutralizing Antibody, Human IgG1 (MALS verified) can inhibit SARS-CoV-2 Spike RBD, His Tag (BA.2/Omicron) (MALS verified) from binding Human ACE2. The half maximal inhibitory concentration (IC₅₀)

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is 2.038 µg/mL.

Molecular Mass

This protein carries a polyhistidine tag at the C-terminus. The protein has a calculated MW of 26.7 kDa. The protein migrates as 33-40 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per µg by the LAL method.

Purity

>95% as determined by SDS-PAGE. >90% as determined by SEC-MALS.

Storage

For long term, the product should be stored at lyophilized state at -20°C or lower. Please avoid repeated freeze-thaw cycles. This product is stable after at: -20°C to -70°C for 12 months in lyophilized state; -70°C for 3 months under sterile conditions after reconstitution.

Reconstitution

It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 ug/ul. Centrifuge the vial at 4°C before opening to recover the entire contents.

GENE INFORMATION

Gene Name

S surface glycoprotein [Severe acute respiratory syndrome coronavirus 2]

Official Symbol

Spike

Synonyms

Spike; S1 protein; Spike glycoprotein Subunit1; S glycoprotein Subunit1; Spike protein S1; COVID-19 Omicron

Gene ID

43740568

Protein Refseq

YP_009724390.1

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UniProt ID

P0DTC2

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