

2019-nCoV Spike protein S1 (A222V)

Catalog No: C19S1-G233H

Novel coronavirus SARS-CoV-2 has caused the pandemic of the respiratory diseases (COVID-19) around the world since 2020. As new variants displace the first-wave virus, it is pivotal to evaluate their transmissibility, virulence and their possible tendency to escape antibody neutralization.

- A variant of SARS-CoV-2 carrying A222V mutation in the spike protein, also designated as lineage B.1.177, originated in Spain and then spread rapidly across Europe.
- RBD (S477G) (319-541) was expressed in CHO cells using a C-terminal his tag.

Product Features



Purity determined by
 densitometry



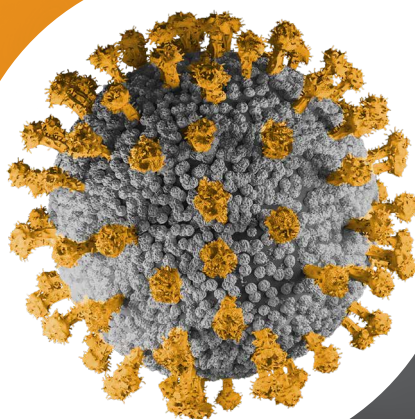
Biologically
 Active



Expressed in
 CHO cells



QA/QC
 Tested



Competitors



Target Customers



Biotech companies
 research A222V
 neutralization



Scientists developing
 diagnostic tests



Biopharma companies
 developing anti-SARS cov 2
 therapies



COVID-19
 ELISAs

2019-nCoV Spike protein S1 (N501Y, D614G)

Catalog No: C19S1-G236H

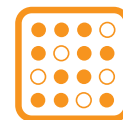
Severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) remains the most rapidly spreading disease since 2020. SARS-CoV-2 (D614G, N501Y mutant) spike subunit 1 (S1) is a recombinant Spike protein S1 (N501Y, D614G) was expressed in CHO cells using a C-terminal His- tag.

- The N501Y mutation has been reported to increase binding affinity to human ACE2.
- The UK variant B.1.1.7 contains 9 out of 23 mutations in the Spike protein region.
- Of the mutations identified in the UK variant, D614G has been associated with higher viral infectivity.

Product Features



Effective for Covid-19
 research



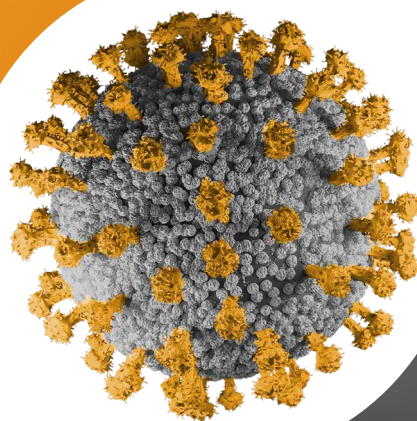
Suitable for ELISA
 functional studies



Expressed in
 CHO cells



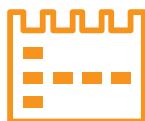
Biologically
 Active



Applications



Recombinant Antibody
 production



Western Blot



Covid19
 protein arrays



Diagnostic kits
 R&D



Scientists testing
 Covid-19 variants



Covid-19 researchers
 working on N501Y, D614G
 neutralization



Biopharma companies and
 Diagnostic kits RnD



Scientists developing
 targeted anti-Spike protein
 antiviral therapies

2019-nCoV Spike protein S1 (K417N, E484K, N501Y, D614G)

Catalog No: C19S1-G238H

Novel coronavirus SARS-CoV-2 has caused the pandemic of the respiratory diseases (COVID-19) around the world since 2020.

- SARS-CoV-2 (501Y.V2 variant) with mutations K417N, E484K and N501Y in the spike protein severely affected regions of South Africa.
- A combination of E484K, K417N and N501Y results in the highest degree of conformational modifications of receptor binding domain of spike protein when bound to hACE2, compared to either E484K or N501Y alone.
- E484K and N501Y increase affinity of RBD for hACE2 and the charge switch due to E484K leads to the formation of favorable contacts.

Product Features



Purity determined by
densitometry



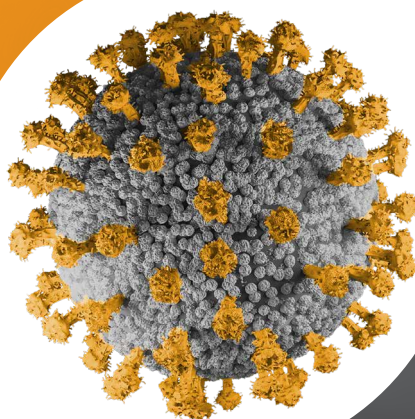
Biologically
Active



QA/AC
Tested



Strong binding affinity to
ACE2



Competitors

CD Creative Diagnostics®

Target Customers



Biopharma companies
developing anti-SARS cov 2
therapies



Biotech companies
research A222V
neutralization



Scientists developing
diagnostic tests



Universities
investigating
SARS-COV-2

2019-nCoV Spike protein RBD (S477G)

Catalog No: C19SD-G231BH

Mutation at S477 in the RBD region of the spike protein has been found to strengthen the binding of the SARS-CoV-2 spike with the ACE2 receptor. As the new variants displace the first-wave virus, it is pivotal to evaluate their transmissibility, virulence and their possible tendency to escape antibody neutralization.

- SignalChem's recombinant 2019-nCoV Spike protein S1 subunit, RBD (S477G) was expressed in CHO cells using a C-terminal his tag.
- The receptor binding domain (RBD) of the SARS-CoV-2 spike glycoprotein that recognizes the host ACE2 receptor is a major determinant of viral entry and neutralization, and is the most divergent region.

Product Features



90% Purity



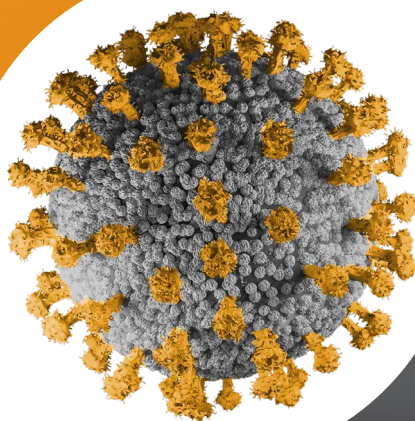
Fully Functional Protein



Expressed in CHO cells



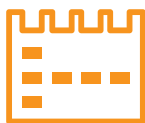
QA/QC Tested



Applications



Recombinant Antibody production



Western Blot



Covid19 protein arrays



Diagnostic kits R&D



Target Customers



Government research organizations

Scientists testing Covid19 inhibitors



Biopharma companies developing vaccine



Scientists developing targeted anti-Spike protein antiviral therapies

2019-nCoV Spike protein RBD (E484Q)

Catalog No: C19SD-G231CH

Viruses harboring mutations in the spike protein have reduced susceptibility to both monoclonal antibodies and convalescent plasma. As these new variants displace the first-wave virus, it is pivotal to evaluate their transmissibility, virulence and their possible tendency to escape antibody neutralization.

- Expressed in CHO cells using a C-terminal his tag.
- RBD E484Q mutation has been detected in the South African (B.1.351), Brazilian (P.1), and NY variants (B.1.526).
- Lineage B.1.617, also known as the Indian variant carries E484Q mutation in combination with L452R.

Product Features



90% Purity



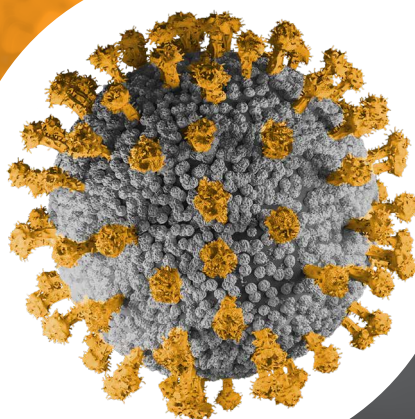
Fully Functional Protein



Expressed in CHO cells



QA/QC Tested



Competitors



Target Customers



Covid19 researchers working on E484Q neutralization



Scientists testing Covid19 variants



Biopharma companies



Diagnostic kits R&D

2019-nCoV Spike protein RBD (N440K)

Catalog No: C19SD-G231EH

SARS-CoV-2 can infect the human respiratory epithelial cells through interaction with the human ACE2 receptor. As these new variants displace the first-wave virus, it is pivotal to evaluate their transmissibility, virulence and their possible tendency to escape antibody neutralization. • The receptor binding domain (RBD) of the SARS-CoV-2 spike glycoprotein that recognizes the host ACE2 receptor is a major determinant of viral entry and neutralization, and is the most divergent region.

- N440K mutation in the RBD of the spike protein has been reported in viral sequences in the variant known as Indian variant.
- Viruses harboring N440K mutation produce higher viral titers possibly leading to higher transmission rate.

Product Features



Strong binding affinity to
 ACE2



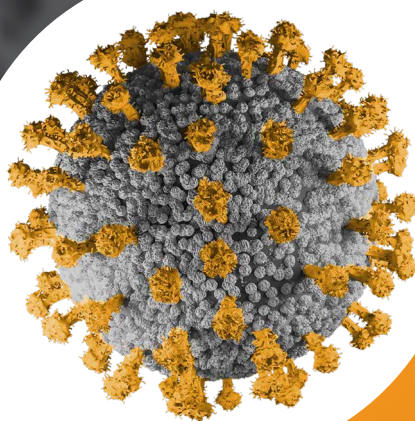
Effective for neutralizing
 antibody research



Activity determined by
 functional ELISA



90%
 Purity



Competitors



Sino Biological
 Biological Solution Specialist

Applications



Covid19 ELISAs



Western blot



Recombinant antibody
 production



Diagnostic kits
 R&D

2019-nCoV Spike protein S1 ($\Delta 69-70$)

Catalog No: C19S1-G234H

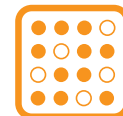
Novel coronavirus SARS-CoV-2 has caused the pandemic of the respiratory diseases (COVID-19) around the world since 2020. As new variants displace the first-wave virus, it is pivotal to evaluate their transmissibility, virulence and their possible tendency to escape antibody neutralization.

- SARS-CoV-2 variant carrying $\Delta 69-70$ has been detected in human cases in Denmark and UK.
- Mutation $\Delta 69-70$ has been associated with increased viral infectivity.
- The spike glycoprotein (S) of coronavirus, a type I transmembrane protein containing two subunits, S1 and S2 is known to bind with host cells through the interaction with angiotensin-converting enzyme 2 (ACE2) and facilitate viral entry into the host cell.

Product Features



Fully Functional Protein



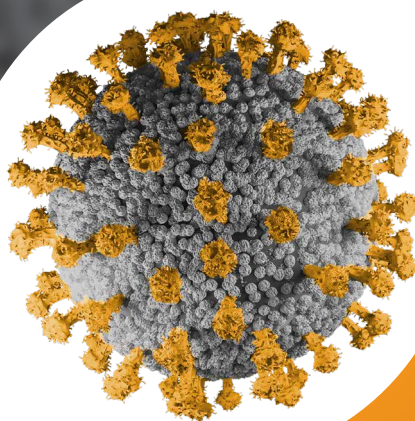
Activity determined by Elisa Kit



Strong human ACE2 binding



90% purity determined by densitometry



Competitors



Applications



Covid19 ELISAs



Western blot



Recombinant antibody production



Diagnostic kits R&D

2019-nCoV Spike protein RBD (K417N)

Catalog No: C19SD-G236H

The K417N mutation has arisen independently in several viral lineages (at least twice in delta). It was observed on the 27 March 2020 in a strain found in Qatar. K417N is generally present in the beta variant (1.351). As new variants displace the first-wave virus, it is pivotal to evaluate their transmissibility, virulence and their possible tendency to escape antibody neutralization.

- Expressed in CHO cells using a C-terminal his tag.
- In addition to antigenic effect, K417N alters binding affinity to ACE-2 protein.
- K417N mutation in the RBD region of spike protein has been identified in B.1.351 lineages.

Product Features



Fully Functional
Protein



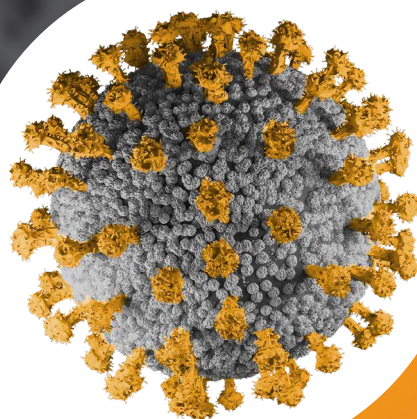
Activity determined
by Elisa Kit



Expressed in
CHO cells



QA/QC
Tested



Competitors



Applications



Covid19 ELISAs



Western blot



Recombinant antibody
production



Diagnostic kits
R&D