SARS-CoV-2 Spike Protein S1 Receptor Binding Domain (nCoV-S2 Spike Protein S1 Receptor Binding Domain)

Synonyms: Novel Coronavirus 2019 Spike S1 protein RBD, S1RBD, recombinant.

PLEASE NOTE: ALWAYS CENTRIFUGE VIAL BEFORE OPENING

Size	Order#	Lot#	Expiry Date
100 µg	2013.V20.100		

Please enquire for bulk quantities and other vial sizes.

Description

Recombinant SARS-CoV-2 Spike Protein S1 receptor binding Domain is derived from *E.Coli*, with a molecular weight of ca. 21,8 kDa. Coronaviruses (CoVs) belong to the order of Nidovirales. They are enveloped, single stranded, positive sense RNA viruses. They contain at least four structural proteins Spike (S) potein, Envelope (E) protein, Membrane (M) protein and nucleocapsid (N) protein. SARS-CoV-2, formerly termed 2019-nCOV, causes the pandemic COVID-19 disease, a viral pneumonia. The SARS-CoV-2 shares an 87 % identity to two bat-derived severe acute respiratory syndrome 2018 (SARS-like) coronaviruses found in Zhoushan of eastern China. It is more distant from SARS-CoV (79 %) identity and MERS-CoV (50 %) identity. SARS-CoV-2 has an analogous receptor-binding domain-structure to that of 2018 SARS-CoV, even though there is a.a. diversity so thus the 2019-nCoV might bind to ACE2 receptor protein (angiotensin-converting enzyme 2) in humans.While bats are possibly the host of SARS-CoV, researchers suspect that animal from the ocean sold at the seafood market was an intermediate host. RSCU analysis proposes that the SARS-CoV-2 is a recombinant within the viral spike glycoprotein between the bat coronavirus and an unknown coronavirus.

- **Source** *E. coli*
- **Purity** ≥ 95 % (SDS-PAGE)
- **Stabilizer** None
- **Buffer** Tris (50mM), NaCl (300mM), Glycerol (10 %), pH = .0*
- **Physical State** Sterile filtered, liquid (1.8 mg/ml)

Biological Activity

Antigenicity Test: Validated in patient serum samples via ELISA by coating SARS-CoV-S1RBD as capture antigen. Antigenetic response even in 900-fold diluted patient serum.

Stability

The protein is stable for at least 2 weeks at 0°C - 4°C, and therefore can be shipped on ice packs. Upon arrival it should be stored at -20 °C. Please avoid repeated freeze-thaw cycles, Defrost at ambient Temperatures.

Amino Acid Sequence

```
NITNLCPFGE VFNATRFASV YAWNRKRISN CVADYSVLYN SASFSTFKCY GVSPTKLNDL CFTNVYADSF
VIRGDEVRQI APGQTGKIAD YNYKLPDDFT GCVIAWNSNN LDSKVGGNYN YLYRLFRKSN LKPFERDIST
EIYQAGSTPC NGVEGFNCYF PLQSYGFQPT NGVGYQPYRV VVLSFELLHA PATV
```

*The Buffer may vary depending on the Lot #. Please contact our technical support if you have specific requirements.

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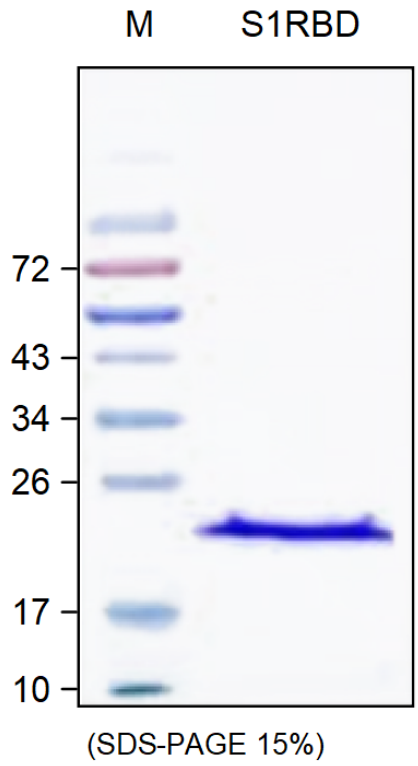
SDS-PAGE



SDS-PAGE of SARS-CoV-2 Spike Protein S1 Receptor Binding Domain.

Usage: For research use only. Not for use in diagnostic or therapeutic procedures. Not for human use.

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