

# Recombinant SARS-COV-2 S protein RBD (N501Y) Protein (His&Avi Tag)

Cat. No. bs-46011P

## Description

<b>Protein Sequence</b>	SARS-COV-2 S protein RBD (N501Y) is expressed with a His-tag and Avi at the C-terminal (Arg319-Phe541).
<b>Source</b>	Mammalian Expression System
<b>Accession</b>	QHD43416.1
<b>Mol wt</b>	The protein has a predicted MW of 26.2 kDa. Due to glycosylation, the protein migrates to 36-40kDa based on Bis-Tris PAGE result.
<b>Endotoxin</b>	Less than 1EU per ug by the LAL method.
<b>Purity</b>	>95% as determined by Bis-Tris PAGE
<b>Activity assay</b>	Not tested.

## Formulation and Storage

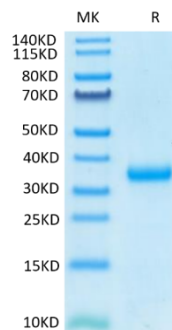
<b>Formulation</b>	Lyophilized powder (Lyophilized from 0.22um filtered solution in 20mM PB (pH 7.4). 5% trehalose is added as protectant before lyophilization.)
<b>Storage</b>	The product should be stored at -70°C or -20°C.

## Background

The spike protein (S) of coronavirus (CoV) attaches the virus to its cellular receptor, angiotensin-converting enzyme 2 (ACE2). A defined receptor-binding domain (RBD) on S mediates this interaction. The S protein plays key parts in the induction of neutralizing-antibody and T-cell responses, as well as protective immunity.

## Assay Data

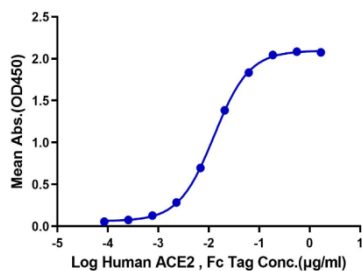
### Tris-Bis PAGE



SARS-COV-2 S protein RBD (N501Y) on Tris-Bis PAGE under reduced condition. The purity is greater than 95%.

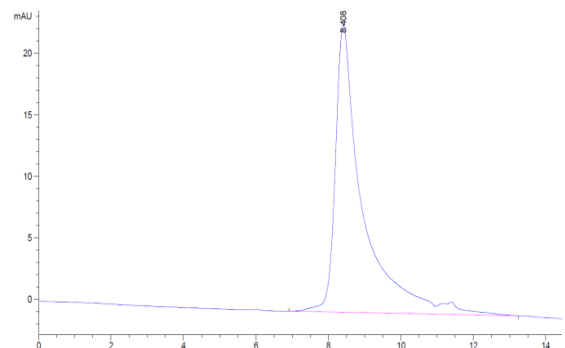
### ELISA Data

SARS-CoV-2 S protein RBD (N501Y), His Tag ELISA  
0.05µg SARS-CoV-2 protein RBD (N501Y), His Tag Per Well



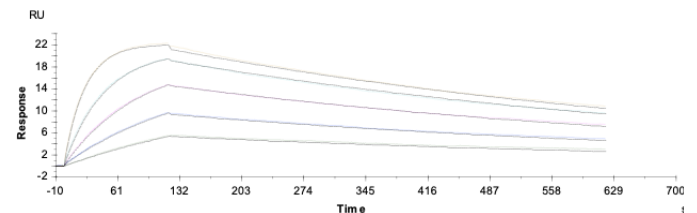
Immobilized SARS-CoV S protein RBD (N501Y), His Tag at 0.5µg/ml (100µl/Well) on the plate. Dose response curve for Human ACE2, Fc Tag with the EC50 of 12.7ng/ml determined by ELISA.

### HPLC Data



The purity of SARS-COV-2 S protein RBD (N501Y) is greater than 95% as determined by SEC-HPLC

### SPR Data



Human ACE2 captured on protein A chip, can bind SARS-CoV S protein RBD (N501Y), His Tag with an affinity constant of 1.74nM as determined in SPR assay (Biacore T200).

**Important Note: This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.**