

# Recombinant SARS-COV-2 Spike S1 (N501Y, K417N, E484K) Protein (His Tag)

Cat. No. **bs-46017P**

## Description

<b>Protein Sequence</b>	Recombinant SARS-COV-2 Spike S1 (N501Y, K417N, E484K) protein is expressed from mammalian with a His tag at the C-terminal. It contains Val16-Arg685 (N501Y, K417N, E484K).
<b>Source</b>	Mammalian Expression System
<b>Accession</b>	YP_009724390.1
<b>Mol wt</b>	The protein has a predicted MW of 75.9 kDa. Due to glycosylation, the protein migrates to 90-130 kDa 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 >95%as determined by SEC-HPLC
<b>Activity assay</b>	Not tested.

## Formulation and Storage

<b>Formulation</b>	Lyophilized from 0.22um filtered solution in 20mM PB (pH 7.4). Normally 5% trehalose is added as protectant before lyophilization.
<b>Reconstitution</b>	Centrifuge tubes before opening. Reconstituting to a concentration more than 100 µg/ml is recommended. Dissolve the lyophilized protein in distilled water.
<b>Storage</b>	The product should be stored at -70°C or -20°C.

## Background

SARS-CoV-2 exploits angiotensin-converting enzyme 2 (ACE2) as a receptor to invade cells. It has been reported that the UK and South African strains may have higher transmission capabilities, eventually in part due to amino acid substitutions on the SARS-CoV-2 Spike protein. The results of a study show the N501Y replacement in this region of the interface (present in both the UK and South African strains) should be favorable for the interaction with ACE2, while the K417N and E484K substitutions (South African strain) would seem neutral or even unfavorable.

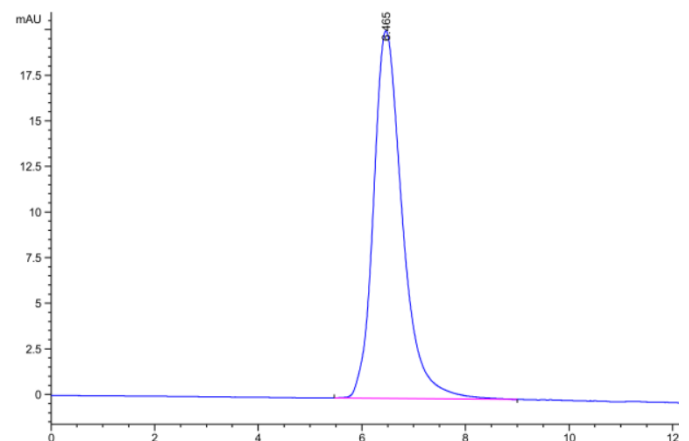
## Assay Data

### Tris-Bis PAGE



Recombinant SARS-CoV-2 Spike S1 (N501Y, K417N, E484K) on Tris-Bis PAGE under reduced condition. The purity is greater than 95%.

### HPLC Data



The purity of SARS-CoV-2 Spike S1 is greater than 95% as determined by SEC-HPLC.