



SARS-CoV-2 Spike S1 South Africa VOC 501.V2 (beta)

Catalogue #	P-319-100
Description:	Protein contains amino acids 14-681, mutations L18F, D80A, D215G, LAL 242-244 del, R246I, K417N, E484K, N501Y, D614G, two extra amino acids (AS) in N-terminus and His-6 tag at C-terminus and GSG linker between protein and tag.
MW:	75.45 kDA
Host:	CHO-based cell line (expressed by QMCF Technology)
Purification:	Metal-affinity chromatography following gel filtration. Protein is sterile-filtrated through 0.22 µm filter.
Purity:	>95%
Concentration:	1 mg/ml
Buffer:	PBS pH 7.4
Endotoxine:	NA
Bioproperties:	Measured by its binding ability to ACE2 protein by OCTET RED96 system.
QC:	SDS-PAGE NanoDrop A280, analytical SEC, Octet binding to ACE2 receptor
Shipping:	Shipped on dry ice
Storage:	Store at -70°C upon receipt. Recommended to aliquot into smaller quantities. Avoid repeated freeze-thaw cycles

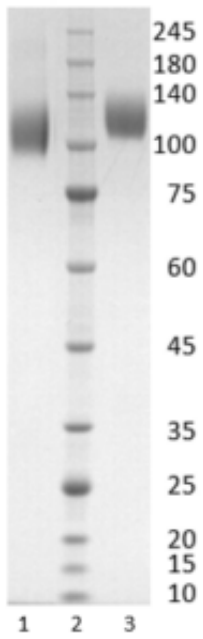


Figure 1. Coomassie-stained SDS-PAGE analysis of SARS-CoV-2 Spike S1 South Africa VOC 501.V2. 4-12% gradient gel is used for analysis. Lane 1. 0.8 μ g SARS-CoV-2 Spike S1 South Africa VOC 501.V2 (-DTT) Lane 2. Protein marker (Smobio) Lane 3. 0.8 μ g SARS-CoV-2 Spike S1 South Africa VOC 501.V2 (+DTT).

Peak Table

Peak #	RT (min)	Area	Area %
1	7.457	5349.94	100.00

Chromatogram

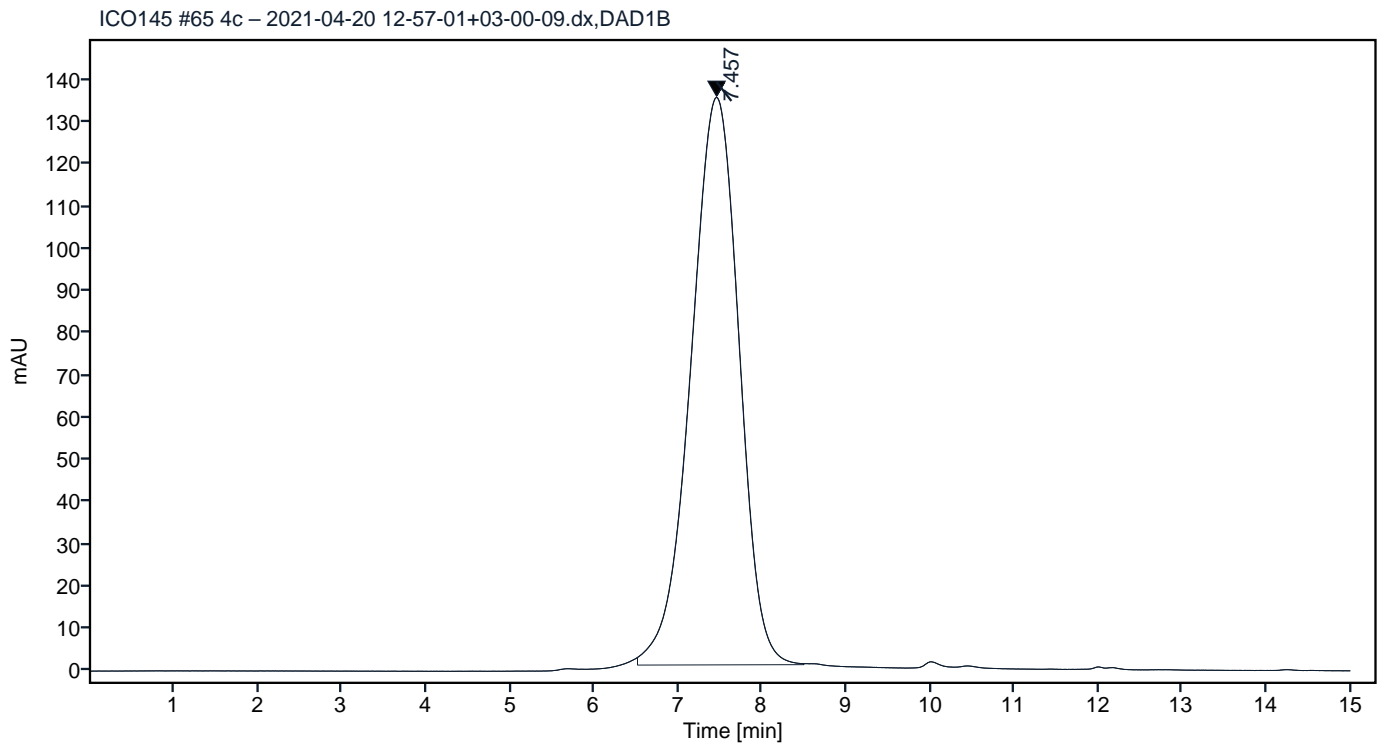


Figure 2. HPLC analytical SEC for final product.

Peak Table

Peak #	RT (min)	Area	Area %
1	7.460	5785.54	100.00

Chromatogram

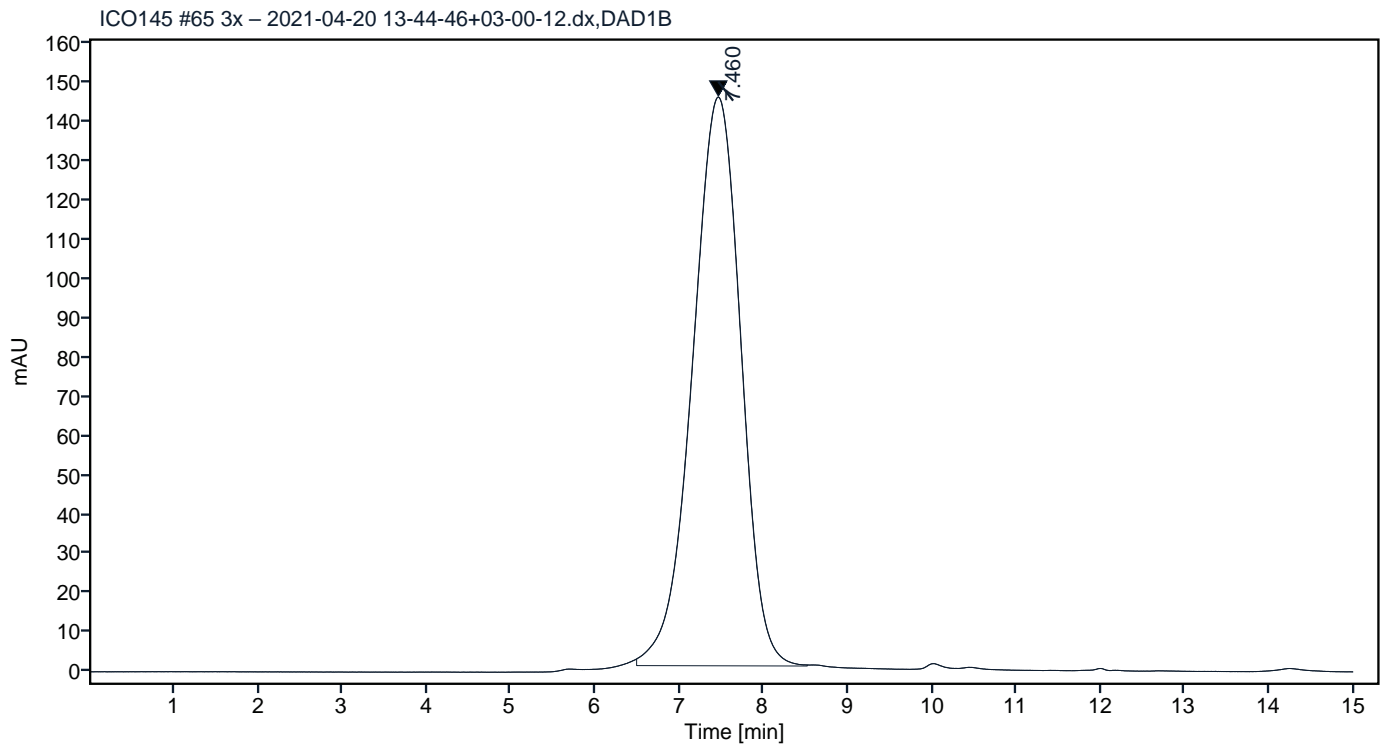


Figure 3. HPLC analytical SEC after 3 freeze-thaw cycles.

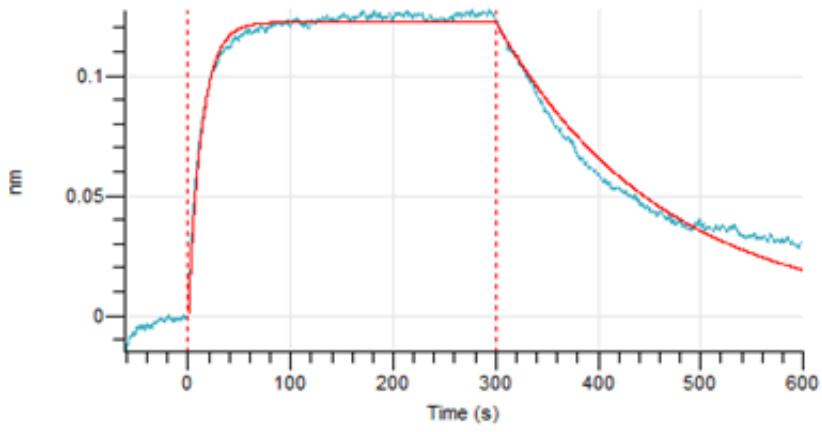


Figure 4. Binding analysis of the SARS-CoV-2 Spike S1 South Africa VOC 501.V2. protein to hACE2 receptor. hACE2 -Fc protein was bound to Protein G sensor. 200 nanomols of SARS-CoV-2 Spike S1 protein was bound to the ACE2 receptor.