



Fusion Antibodies, 1 Springbank Road,
Springbank industrial estate, Belfast, BT17 0QI

Certificate of Analysis

Product Name:	Recombinant SARS-CoV-2 (COVID-19) spike S1 protein (D614G variant).
Product Code:	R029 S1 TEV AVI HIS
Lot number:	300920
Sequence:	Corresponding to amino acids 13-685 of Uniprot sequence PODTC2. Incorporating the D614G mutation. Minimal additional amino acids have been added to C-terminal, which encompass a cleavable hexahistidine and Avi tag sequence. Full sequence available upon request.
Amount:	As requested
Concentration:	0.32 mg/ml
Buffer:	Phosphate-buffered saline ph 7.4
Preservative:	None present. 0.2 µm filtered.
Expression:	Expressed using Human Embryonic Kidney (HEK) cell line
Purification:	Purified from an animal origin-free culture supernatant by affinity and size exclusion chromatography.
Purity:	>80% (as determined by reducing and denaturing SDS-polyacrylamide gels [Fig.1])
Activity:	Binds human ACE2 protein.
Applications:	As required.
Storage:	2-8°C.

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SDS-PAGE analysis

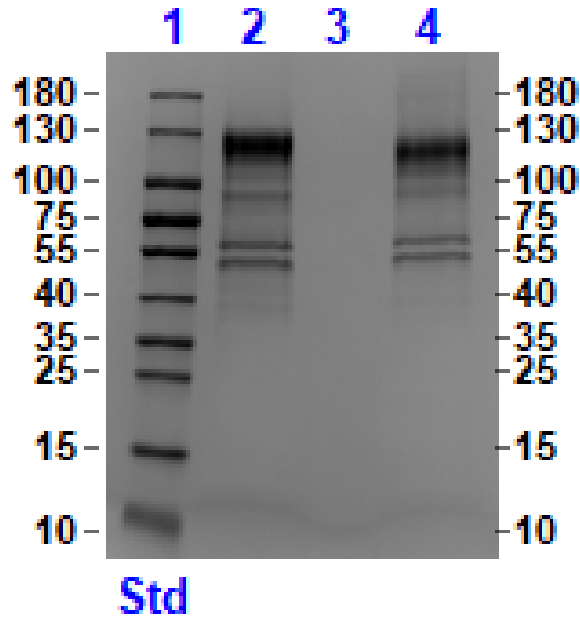


Figure 1: 4-20% denaturing, reducing and non-reducing, SDS-PAGE analysis of S1 TEV AVI HIS. Molecular weight marker shown in kilodaltons. Lanes are as follows:

Lane Number	Sample	Lot	Amount (µg)	Conditions
1	PageRuler (Thermo Fisher)	NA	NA	Reducing
2	S1 TEV AVI HIS	300920	2	Reducing
3	blank	-	-	-
4	S1 TEV AVI HIS	300920	2	Non-Reducing

*R/NR denotes reducing and non-reducing conditions

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Activity verification

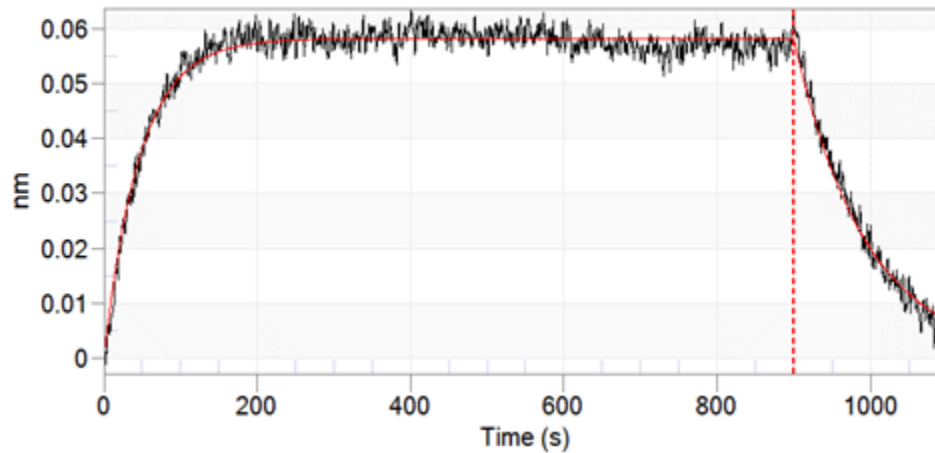


Figure 2. Fc-tagged ACE2 (AcroBiosystems: AC2-H5257) immobilised on an anti-human Fc (AHC) biosensor surface can bind SARS-CoV-2 spike S1 protein (D614G variant [Cat. No. R029 S1 TEV AVI HIS]), as determined in a bio-layer interferometry assay (Octet RED96).