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Product Datasheet

Cat. No: OBA0102

SARS CoV-2 Spike-RBD 319-541 recombinant protein, Variant of the B.1.1.7 lineage

For research use only

Description:

SARS-CoV-2 Spike-RBD 319-541 variant B.1.1.7 (N501Y)
Expressed in HEK-cell Expi293F system. Protein carries a poly-his tag at the N-terminus.

Correct sequence confirmed by Mass Spectrometry, where full coverage of the sequence has been obtained.

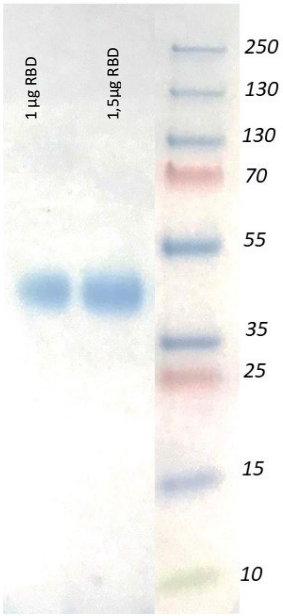
Calculated MW: 27 kDa
Protein migrates as appox. 37 kDa due to glycosylations (See SDS-page beside).

Glycan structures are confirmed, and glycosylation sites identified by Mass Spectrometry of protein samples with and without PNGaseF treatment. (see detailed results below).

Identified glycosylation sites: N42(IT) and N54(AT).

Glycan structures have a combined mass of approx. 6 kDa.

Dimerization percentage < 10%



Formulation: In PBS solution pH=7.4

Purification: Immobilized metal affinity chromatography, NiNTA.

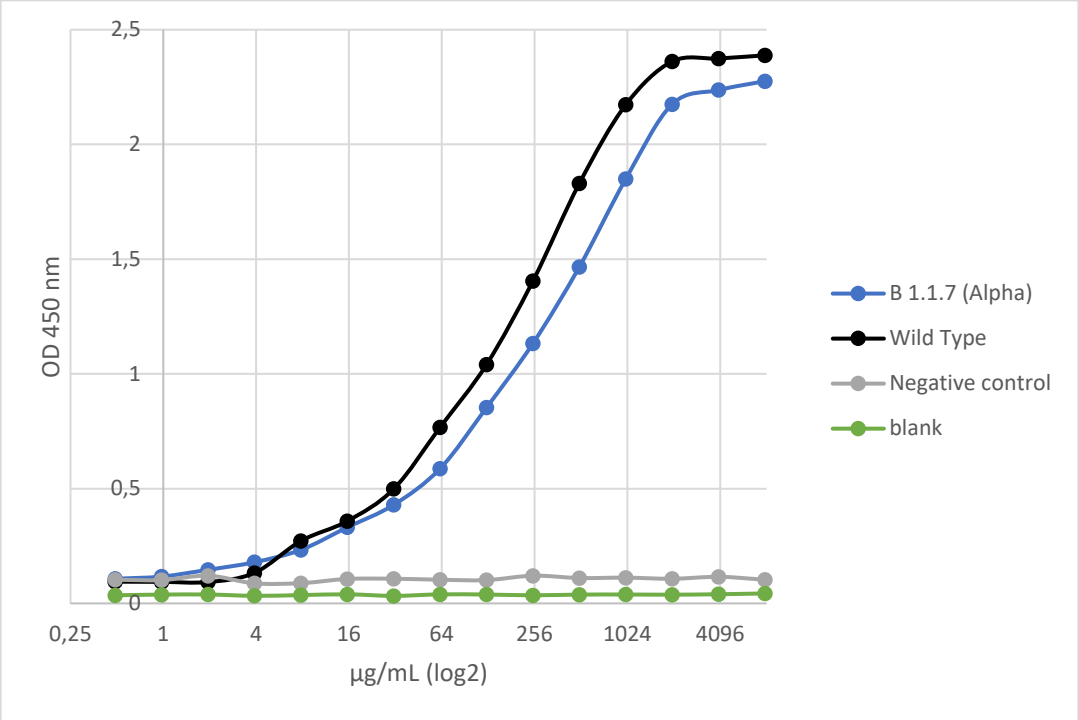
Purity: > 95% as determined by SDS-PAGE

Storage: Store at -70°C short term. Avoid freeze thaw cycles.

Bioactivity:

ELISA: High immunogenicity verified by immunization of hens.

The antigen shows strong antigenicity. Immobilized SARS-CoV-2 Spike RBD 319-541 B.1.1.7 recombinant protein at 1 µg/mL (100µL/well) binds chicken anti- SARS-CoV-2 Spike RBD 319-541 with a linear range between 64 to 1024 ng/mL antibody added over fixed antigen concertation coated on the well. Starting concentration of antibody normalized to 1 µg/mL.



Mass Spectrometry analysis:

The sequence for the variant has been confirmed by mass spectrometry analysis.
Calculated coverage without signal peptide is 92.2%. The missing peptide is caused by glycosylation's on NIT and/or NAT. The one region mutated in this variant is covered showing that the expressed protein matches the B 1.1.7 variant amino acid sequence.