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SARS-CoV-2 Spike Trimer Protein Active (C-His)

Catalog Number:	603801, 603802
Size:	25 ug, 100 ug
Target Name:	SARS-CoV2 Spike Protein Trimer, Spike trimer
Regulatory Status:	RUO

PRODUCT DETAILS

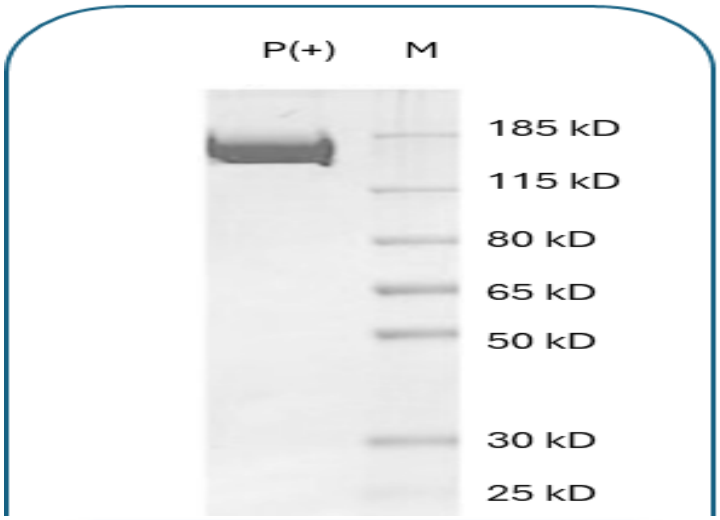
Application:	ELISA, BLI
Format:	Liquid, Purified
Expression Host:	HEK293
Species:	SARS-CoV-2
Accession Number:	QHD43416.1
Sources:	Recombinant SARS-CoV-2 Spike protein (Val16-Gln1208) with furin mutation, two proline mutations, and C-terminus trimer motif His tag was expressed in 293 Cells.
Molecular Weight:	This protein has a predicted molecular weight of 138 kDa. Under DTT-reducing conditions, the protein migrates at approximately 150-180 kDa on SDS-PAGE.
Affinity Tag:	C-His
Purity:	>95% based on SDS-PAGE under reducing condition
Formulation:	1xPBS buffer, pH7.4, 0.22 μm filtered
Endotoxin level:	Not tested
Protein Concentration:	25μg size is bottled at 0.2mg/mL concentration. 100 μg size is supplied at a lot-specific concentration.
Storage and Handling:	Briefly centrifuge the vial upon receipt. An unopened vial can be stored at 4°C for up to 2 weeks, or at -20°C or below for up to six months. The protein may be further diluted to 0.1 mg/mL using 0.22 μm-filtered PBS buffer (pH 7.4). For long-term storage, the diluted stock solution should be aliquoted and stored at ≤ –70°C to minimize freeze-thaw cycles. If additional dilution is required, carrier proteins such as FBS or BSA should be added to maintain protein stability.

BACKGROUND INFORMATION

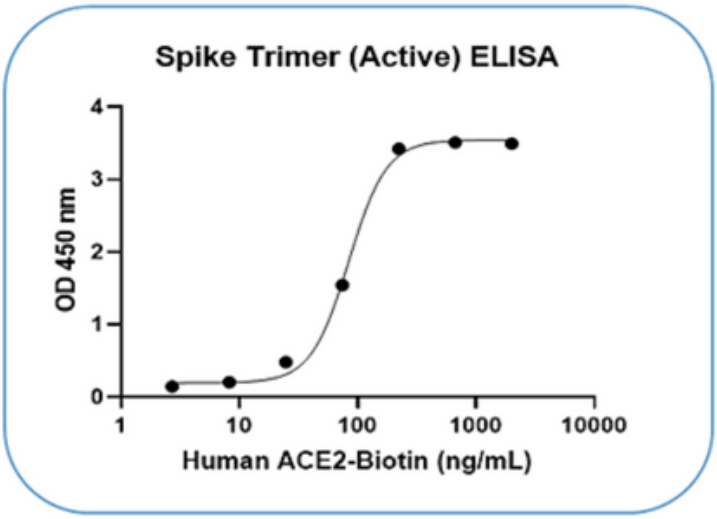
The spike protein forms a homotrimer on the viral surface, with each monomer composed of two functional subunits: S1 and S2. The spike protein is heavily glycosylated, shielding it from host antibodies and contributing to immune evasion. Spike trimer protein mediates the membrane fusion and viral entry. Upon ACE2 engagement and proteolytic cleavage (e.g., by furin or TMPRSS2), the S1 subunit dissociates, and S2 undergoes a conformational change to trigger membrane fusion. The trimeric spike is the main target for neutralizing antibodies and vaccines, making its structural integrity and mutations within it (especially in RBD and S1/S2 cleavage site) critical to viral infectivity, immune escape, and vaccine efficacy. SARS-CoV-2 spike trimer with two proline mutations

(S-2P) is a stabilized, prefusion-active form of the viral spike protein, widely used in vaccine design and structural studies.

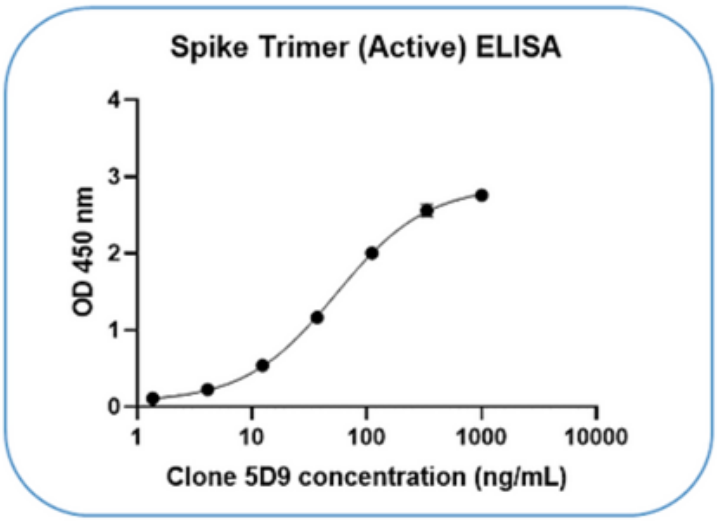
PRODUCT DATA



SARS-CoV2 Spike Trimer Active Protein with C-His tag on SDS-PAGE under reducing conditions. The gel was stained for 1 hour with BlinkBlue Protein Staining Buffer (Catalog 700102). The purity of this protein appears to be greater than 90%.



Recombinant SARS-CoV2 Spike Trimer (active) protein is coated at 2ug/mL (200ng/well). Biotinylated Human ACE2 Protein (N-His, catalog # 600003) can bind SARS-CoV2 Spike Trimer (active) in the dose-dependent manner (Quality tested).



Recombinant SARS-CoV2 Spike Trimer protein (active) is coated at 2ug/mL (200ng/well). Anti-SARS-CoV2 spike antibody (clone 5D9 from Novoproteins) can bind SARS-CoV2 Spike Trimer (active) in the dose-dependent manner (Quality tested).

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