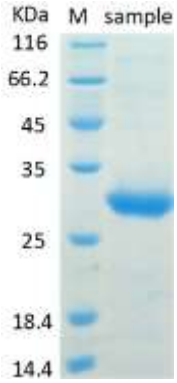
Recombinant SARS-CoV-2 Spike Protein (RBD) (Tag Free)

Catalog No: BP038

Description	Recombinant SARS-CoV-2 Spike Protein is produced by our Insect expression system and the target gene encoding Arg319-Asn532 is expressed.
Expression System	Insect cells
Alternative name	Spike glycoprotein; S protein; S1 subunit; Host Cell Receptor Binding Domain (RBD); E2; Peplomer protein
Accession No.	P0DTC2
Predicted Molecular Weight	24kDa
Apparent Molecular Weight	30kDa, under reducing conditions.
Quality Control	Purity: greater than 95% as determined by reducing SDS-PAGE. Endotoxin: less than 0.01 ng/μg (0.1 EU/μg) as determined by TAL test.
Formulation	Liquid in sterile PBS, pH7.4
Shipping	The product is shipped on dry ice or ice pack. Upon receipt, store it immediately at the temperature listed below.
Storage	Store at < -20°C, stable for 6 months after receipt. Please minimize freeze-thaw cycles.
Background	SARS-CoV-2 Spike Protein is glycoprotein and expressed in many cell types supporting its reported involvement in multiple biological processes that include coagulation, apoptosis, cancer development and progression, and the innate immune response. Known receptors bind S1 are ACE2, angiotensin-converting enzyme 2, DPP4, CEACAM, etc. The spike (S) glycoprotein of coronaviruses is known to be essential in the binding of the virus to the host cell at the advent of the infection process. Most notable is severe acute respiratory syndrome (SARS). The severe acute respiratory syndrome-coronavirus (SARS-CoV) spike (S) glycoprotein alone can mediate the membrane fusion required for virus entry and cell fusion. It is also a major immunogen and a target for entry inhibitors. It's been reported that 2019-nCoV can infect the human respiratory epithelial cells through interaction with the human ACE2 receptor. The spike protein is a large type I transmembrane protein containing two subunits, S1 and S2. S1 mainly contains a receptor binding domain (RBD), which is responsible for recognizing the cell surface receptor. S2 contains basic elements needed for the membrane fusion. The S protein plays key parts in the induction of neutralizing-antibody and T-cell responses, as well as protective immunity.

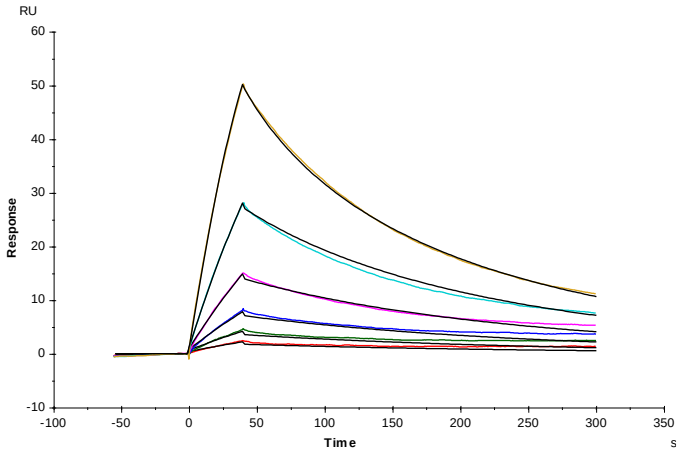
SDS-PAGE



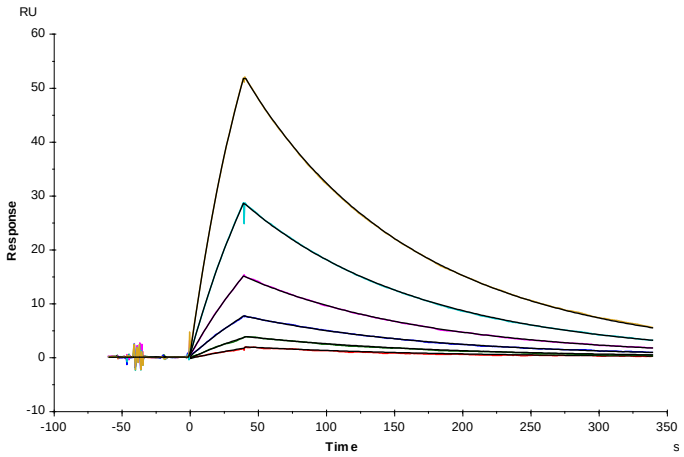
M: Marker

Sample: Sample under reducing conditions

Bioactivity(SPR)



Human ACE-2, His tag (Cat# BP042) captured on chip can bind to SARS-CoV-2 Spike Protein RBD-His (Cat# BP038) with an affinity constant (KD) value of 9.19nM. (Biacore T200)



Human ACE-2, Fc tag (Cat# BP041) captured on chip can bind to SARS-CoV-2 Spike Protein RBD-His (Cat# BP038) with an affinity constant (KD) value of 23.6nM. (Biacore T200)