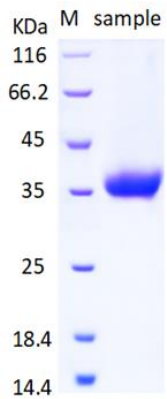
Recombinant SARS-CoV-2 Spike Protein (RBD) (C-His)

Catalog No: BP036

Description	Recombinant SARS-CoV-2 Spike Protein is produced by our Mammalian expression system and the target gene encoding Arg319-Asn532 is expressed with 8His tag at the C-terminus
Expression System	Human cells
Alternative name	Spike glycoprotein; S protein; S1 subunit; Host Cell Receptor Binding Domain (RBD); E2; Peplomer protein
Accession No.	P0DTC2
Predicted Molecular Weight	25kDa
Apparent Molecular Weight	35kDa, 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	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature listed below.
Storage	Lyophilized protein should be stored at < -20°C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months. Always centrifuge tubes before opening. Do not mix by vortex or pipetting.
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.

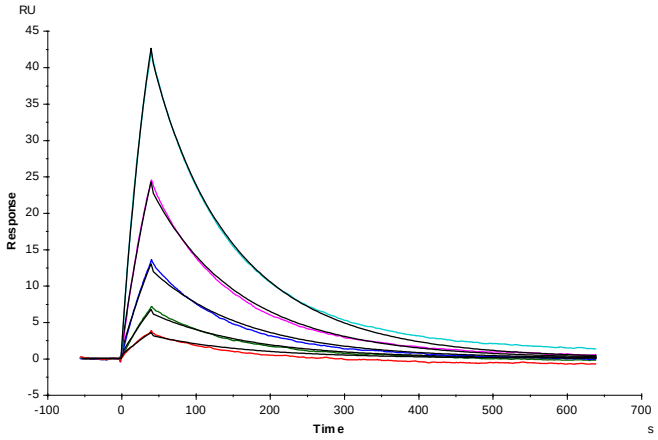
SDS-PAGE



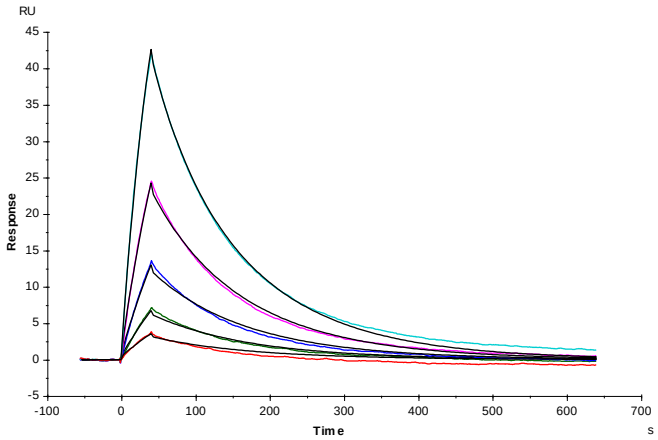
M: Marker

1: 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# BP036) with an affinity constant (KD) value of 17.6nM. (Biacore T200)



Human ACE-2, Fc tag (Cat# BP041) captured on chip can bind to SARS-CoV-2 Spike Protein RBD-His (Cat# BP036) with an affinity constant (KD) value of 12.3nM. (Biacore T200)