

Recombinant SARS-CoV-2 Spike S1 RBD Protein

Catalog Number: SYN-A1002

GENERAL INFORMATION	
Source:	Recombinant protein of the receptor binding domain (RBD) of SARS-CoV-2 (2019-nCoV) Spike S1 from Wuhan pneumonia virus (MN908947.3), with a human IgG1 Fc tag at its C-terminus. Expressed and purified from in vitro cell culture of Human 293 cells. The amino acid sequences of the recombinant protein were derived from accession #YP_009724390.1 fused to Glu99-Lys330 region of human IgG1 constant region.
Accession:	NC_045512.2; YP_009724390.1; Gene ID: 43740568
QC TESTING	
Purity:	>90% by SDS-PAGE gel and Coomassie Blue staining
Endotoxin:	Endotoxin level is < 0.1 ng/μg of protein (<1 EU/μg)
FORMULATION AND STORAGE	
Formulation:	Protein formulated in a solution of PBS, pH7.2
Storage:	The product is shipped with dry ice. Upon receipt, the unopened vial can be stored at -80°C for over 12 months. Avoid repeated freeze/thaw cycles. The product can also be aliquoted into smaller-sized working aliquots with the desired buffer and concentration, and stored at or below -20°C stable for 3 to 4 weeks.
BACKGROUND	
Background:	The coronavirus Spike protein (S) is a large oligomeric transmembrane protein that mediates coronavirus entry into host cells. It contains two subunits, S1 and S2. Spike S1 mainly contains a receptor binding domain (RBD) that recognizes a variety of host cell surface receptors. Spike S2 contains basic elements responsible for the membrane fusion. The coronavirus first binds to a receptor on the host cell surface through the Spike S1 subunit, and then fuses viral and host membranes through the Spike S2 subunit.