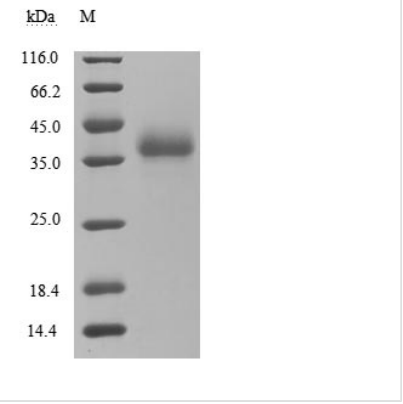
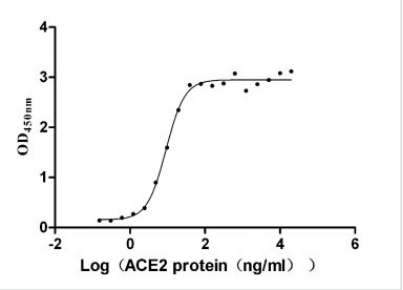
Recombinant Human SARS coronavirus Spike glycoprotein (S), partial (Active)

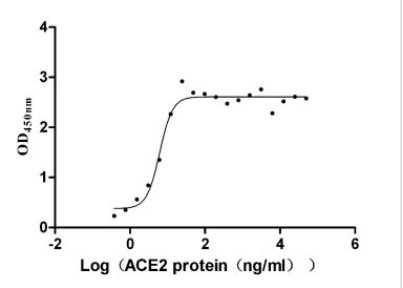
Product Code	CSB-MP348663HQE
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	P59594
Form	Lyophilized powder
Storage Buffer	Lyophilized from a 0.2 μm filtered 20 mM Tris-HCl, 0.5 M NaCl, 6% Trehalose, pH 8.0
Product Type	Recombinant Protein
Immunogen Species	Human SARS coronavirus (SARS-CoV) (Severe acute respiratory syndrome coronavirus)
Biological Activity	①Measured by its binding ability in a functional ELISA. Immobilized SARS-CoV S-RBD at 2 μg/ml can bind Paguma larvata ACE2 (CSB-MP684964PAL), the EC_{50} is 5.056-7.559 ng/ml.②Measured by its binding ability in a functional ELISA. Immobilized SARS-CoV S-RBD at 5 μg/ml can bind human ACE2 (CSB-MP866317HU), the EC_{50} is 7.941-10.49 ng/ml.
Purity	Greater than 95% as determined by SDS-PAGE.
Sequence	RVVPSGDVVRFPNITNLCPFGEVFNATKFPSVYAWERKKISNCVADYSVLYNS TFFSTFKCYGVSATKLNDLCFSNVYADSFVVKGDDVRQIAPGQTGVIADYNYK LPDDFMGCVLAWNTRNIDATSTGNYNYKYRYLRHGKLRPFERDISNVPFSPD GKPCTPPALNCYWPLNDYGFYTTTGIGYQPYRVVVLSFELLNAPATVCGPKLS TDLIKNQCVNF
Lead Time	3-7 business days
Research Area	Microbiology
Source	Mammalian cell
Gene Names	S
Expression Region	306-527aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 10xHis-tagged and C-terminal Myc-tagged
Mol. Weight	30.0 kDa
Protein Description	Partial
Image	



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.



Activity
Measured by its binding ability in a functional ELISA. Immobilized SARS-CoV S-RBD at 2 μg/ml can bind Paguma larvata ACE2 (CSB-MP684964PAL), the EC_{50} is 5.056-7.559 ng/ml.



Activity
Measured by its binding ability in a functional ELISA. Immobilized SARS-CoV S-RBD at 5 μg/ml can bind human ACE2 (CSB-MP866317HU), the EC_{50} is 7.941-10.49 ng/ml.

Description

Human SARS-CoV spike (S) protein amino acids 306-527 linked an N-terminal 10xHis-tag by the Thrombin linker, as well as a C-terminal Myc tag, was expressed in mammalian cells. The product is the recombinant human SARS-CoV S protein. This SARS-CoV S protein is an active protein, whose activity has been determined through functional ELISA by binding to ACE2 of Paguma larvata and human, with EC_{50} values of 5.056-7.559 ng/ mL and 7.941-10.49 ng/ mL, respectively. Its purity is high (>95%, SDS-PAGE) and endotoxin is low (<1.0 EU/ug protein, LAL method). Due to the glycosylation, it has an apparent molecular weight of 36 kDa on the gel. It is in stock now.

The SARS-CoV is an enveloped, single, and positive-stranded RNA virus. Its S protein is made up of the S1 subunit and S2 subunit. The S1 subunit contains a receptor-binding domain responsible for the engagement with the host cell receptor ACE2. The S2 subunit mediates the virus-host cell membrane fusion. The S protein plays important role in the induction of neutralizing-antibody and T-cell responses, and protective immunity during SARS-CoV infection.

Endotoxin

Less than 1.0 EU/ug as determined by LAL method.

Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.