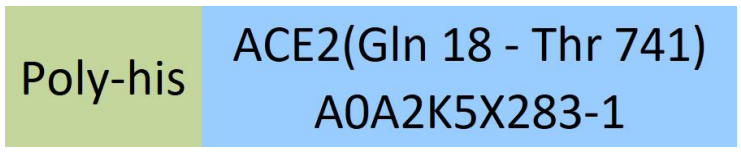
Synonym

ACE-2,ACEH,ACE2

Source

Cynomolgus ACE2, His Tag(AC2-C52H7) is expressed from human 293 cells (HEK293). It contains AA Gln 18 - Thr 741 (Accession # A0A2K5X283-1). Predicted N-terminus: His

Molecular Characterization



This protein carries a polyhistidine tag at the N-terminus.

The protein has a calculated MW of 85.7 kDa. The protein migrates as 90-115 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per μg by the LAL method / rFC method.

Purity

>95% as determined by SDS-PAGE.

Formulation

Supplied as 0.2 μm filtered solution in 50 mM Tris, 150 mM NaCl, Arginine, pH7.5 with glycerol as protectant.

Contact us for customized product form or formulation.

Shipping

This product is supplied and shipped with dry ice, please inquire the shipping cost.

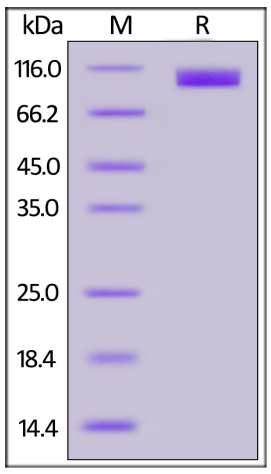
Storage

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

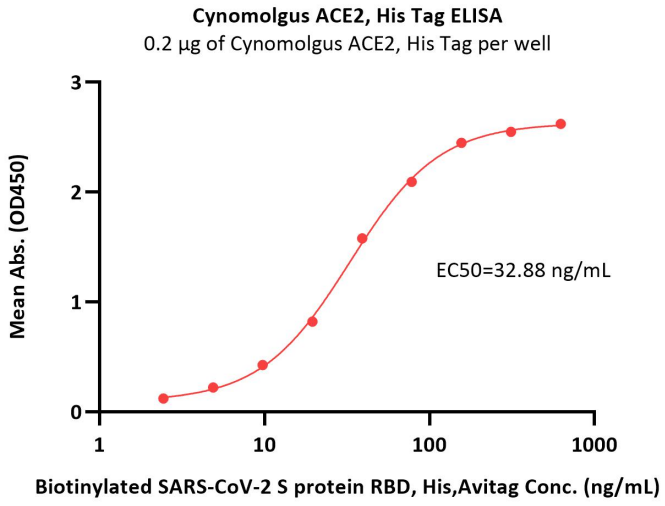
- The product MUST be stored at -70°C or lower upon receipt;
- -70°C for 3 months under sterile conditions.

SDS-PAGE

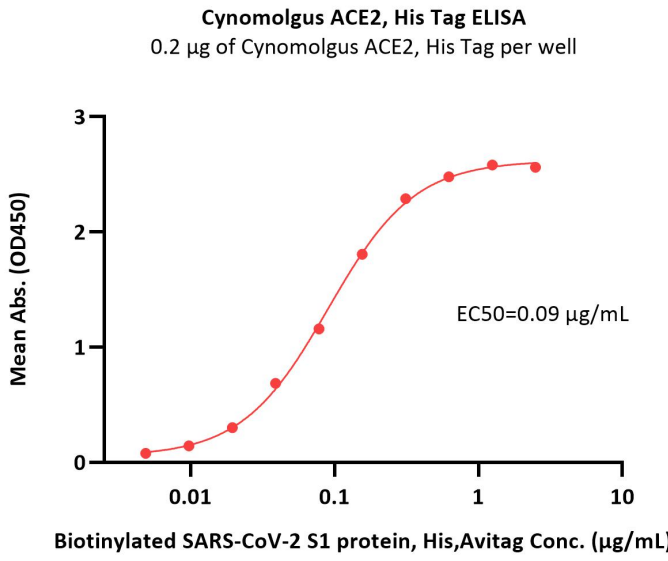


Cynomolgus ACE2, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

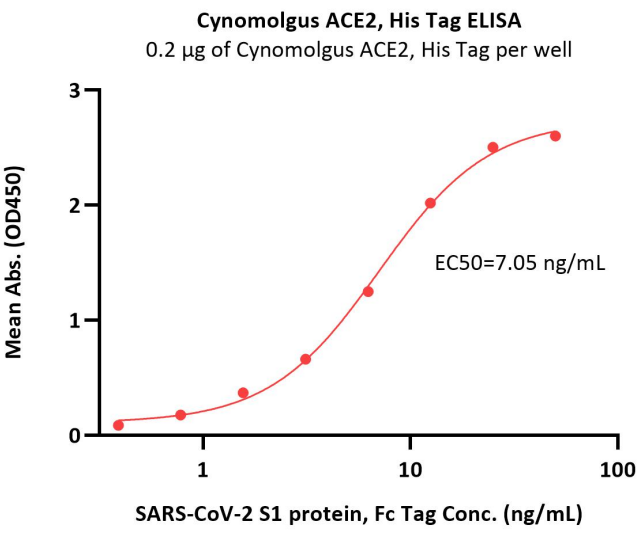
Bioactivity-ELISA



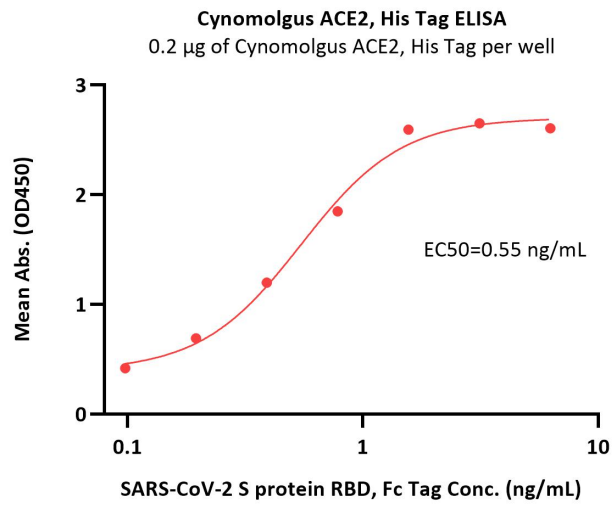
Immobilized Cynomolgus ACE2, His Tag (Cat. No. AC2-C52H7) at 2 μg/mL (100 μL/well) can bind Biotinylated SARS-CoV-2 S protein RBD, His,Avitag (Cat. No. SPD-C82E9) with a linear range of 2-78 ng/mL (QC tested).



Immobilized Cynomolgus ACE2, His Tag (Cat. No. AC2-C52H7) at 2 μg/mL (100 μL/well) can bind Biotinylated SARS-CoV-2 S1 protein, His,Avitag (Cat. No. S1N-C82E8) with a linear range of 0.005-0.313 μg/mL (Routinely tested).

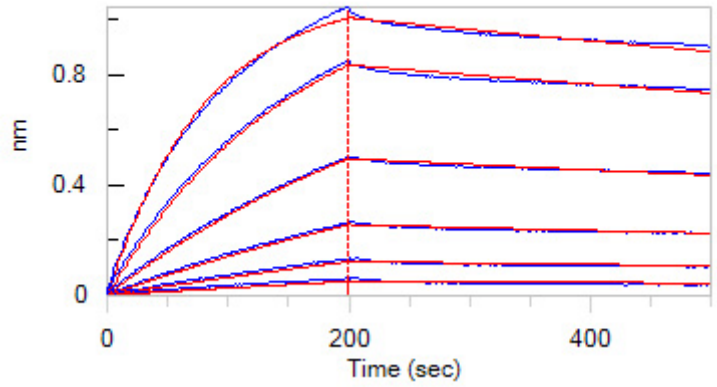


Immobilized Cynomolgus ACE2, His Tag (Cat. No. AC2-C52H7) at 2 μg/mL (100 μL/well) can bind SARS-CoV-2 S1 protein, Fc Tag (Cat. No. S1N-C5255) with a linear range of 0.4-13 ng/mL (Routinely tested).

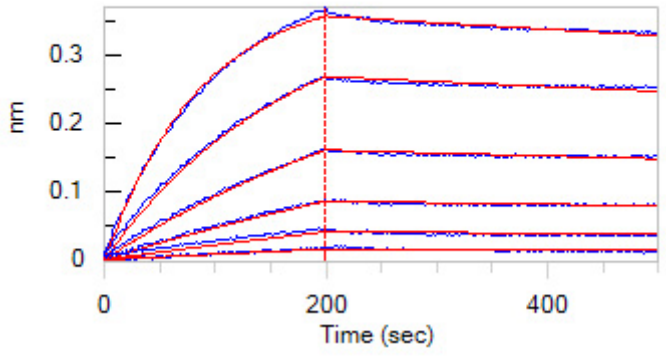


Immobilized Cynomolgus ACE2, His Tag (Cat. No. AC2-C52H7) at 2 μg/mL (100 μL/well) can bind SARS-CoV-2 S protein RBD, Fc Tag (Cat. No. SPD-C5255) with a linear range of 0.1-0.8 ng/mL (Routinely tested).

Bioactivity-BLI



Loaded SARS-CoV-2 S protein RBD, Fc Tag (Cat. No. SPD-C5255) on Protein A Biosensor, can bind Cynomolgus ACE2, His Tag (Cat. No. AC2-C52H7) with an affinity constant of 4.48 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).



Loaded SARS-CoV-2 S1 protein, Mouse IgG2a Fc Tag (Cat. No. S1N-C5257) on Protein A Biosensor, can bind Cynomolgus ACE2, His Tag (Cat. No. AC2-C52H7) with an affinity constant of 3.06 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

Background

Angiotensin-converting enzyme 2 (ACE2) is also known as ACEH (ACE homolog), is an integral membrane protein with considerable homologous to ACE, which belongs to the peptidase M2 family. ACE2 is an exopeptidase that catalyses the conversion of angiotensin I to the nonapeptide angiotensin, or the conversion of angiotensin II to angiotensin 1-7. ACE2 may be an important regulator of heart function. In case of human coronaviruses SARS and HCoV-NL63 infections, ACE-2 serve as functional receptor for the spike glycoprotein of both coronaviruses. ACE2 is activated by chloride and fluoride, but not bromide and Inhibited by MLN-4760, cFP_Leu, and EDTA, but not by the ACE inhibitors linosipril, captopril and enalaprilat. ACE2 is active from pH 6 to 9, and the optimum pH is 6.5 in the presence of 1 M NaCl.