

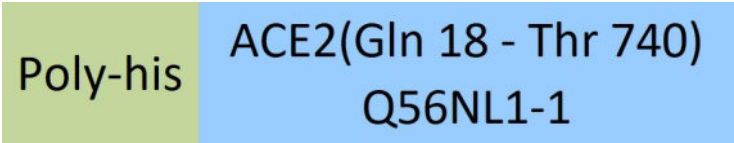
Synonym

ACE-2,ACEH,ACE2

Source

Paguma larvata ACE2, His Tag (AC2-P5248) is expressed from human 293 cells (HEK293). It contains AA Gln 18 - Thr 740 (Accession # Q56NL1-1).  
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.

Purity

>90% as determined by SDS-PAGE.

Formulation

Delivered as bulk protein in a 0.2 µm filtered solution of 50 mM Tris, 150 mM NaCl, pH7.5 with glycerol as protectant.  
Contact us for customized product form or formulation.

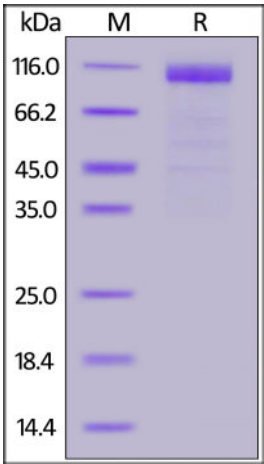
Storage

*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.

Shipping

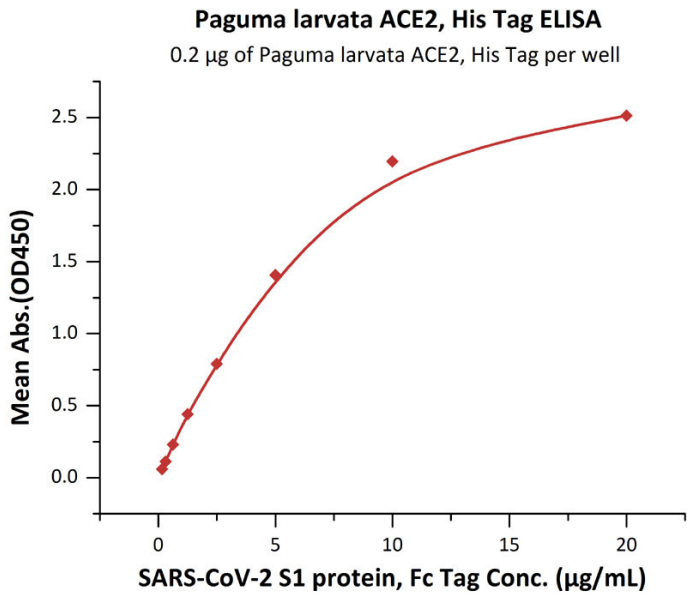
*This product is supplied as sterile liquid solution and shipped frozen with dry ice, please inquire the shipping cost.*

SDS-PAGE

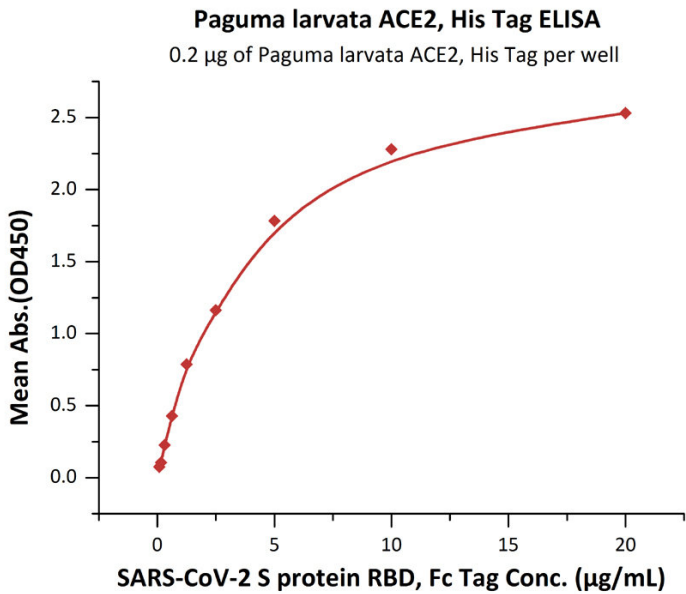


Paguma larvata ACE2, His Tag on SDS-PAGE under reducing (R) condition.  
The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 90%.

Bioactivity-ELISA

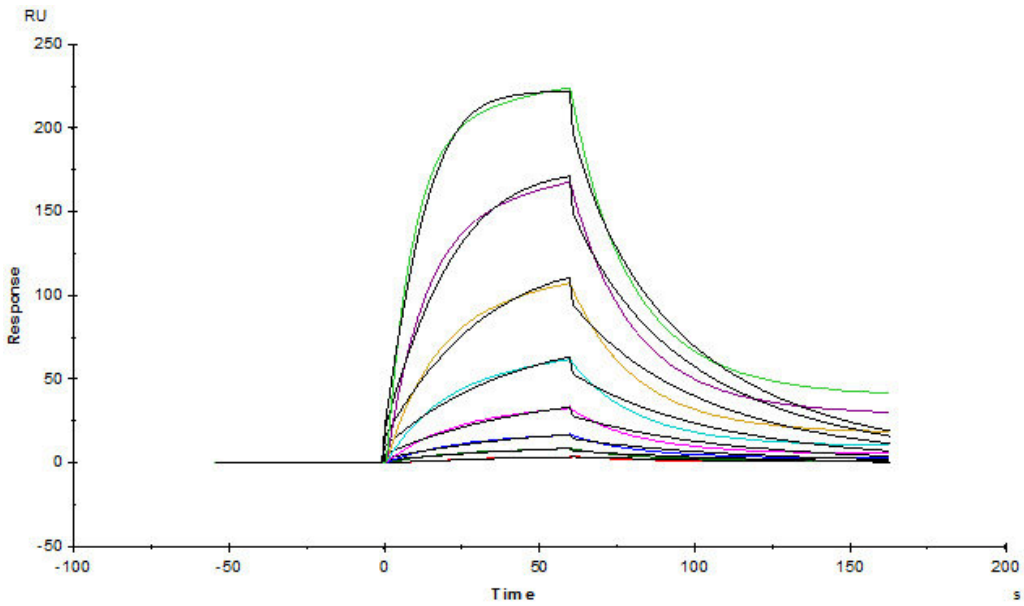


Immobilized Paguma larvata ACE2, His Tag (Cat. No. [AC2-P5248](#)) at 2 µg/mL (100 µL/well) can bind SARS-CoV-2 S1 protein, Fc Tag (Cat. No. [S1N-C5255](#)) with a linear range of 0.156-5 µg/mL (Routinely tested).

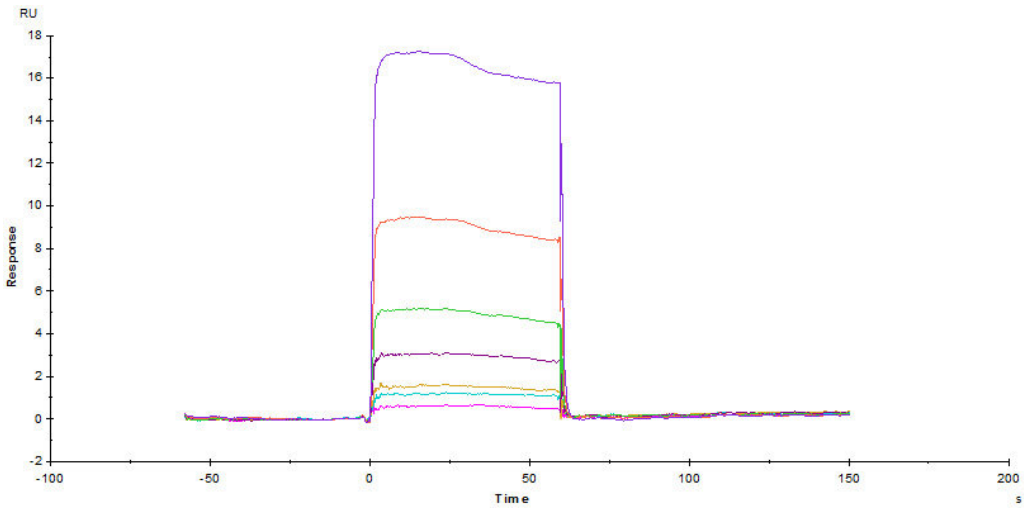


Immobilized Paguma larvata ACE2, His Tag (Cat. No. [AC2-P5248](#)) at 2 µg/mL (100 µL/well) can bind SARS-CoV-2 S protein RBD, Fc Tag (Cat. No. [SPD-C5255](#)) with a linear range of 0.078-5 µg/mL (Routinely tested).

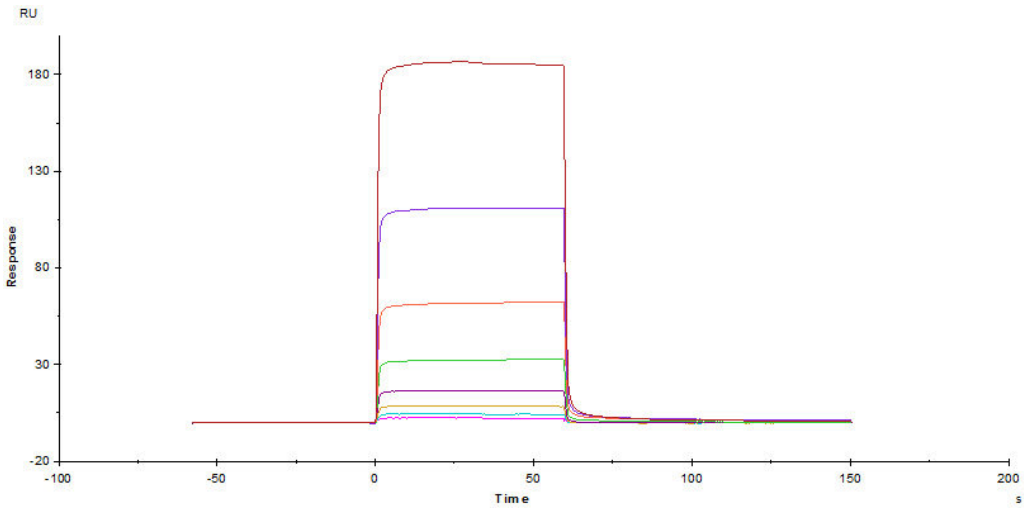
Bioactivity-SPR



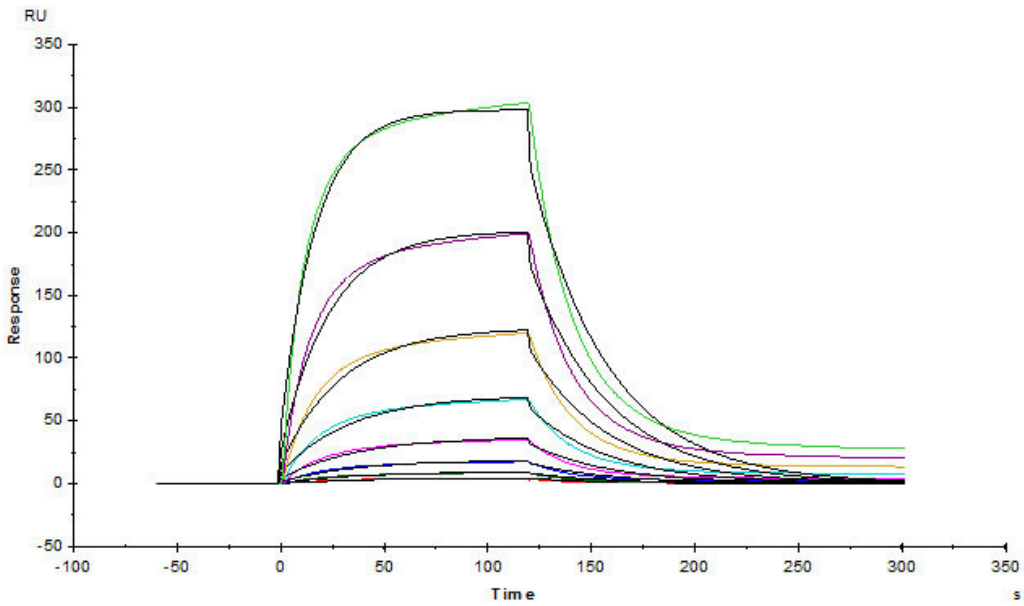
Paguma larvata ACE2, His Tag (Cat. No. AC2-P5248) immobilized on CM5 Chip can bind SARS S protein RBD, His Tag (Cat. No. SPD-S52H6) with an affinity constant of 0.101 µM as determined in a SPR assay (Biacore T200) (QC tested).



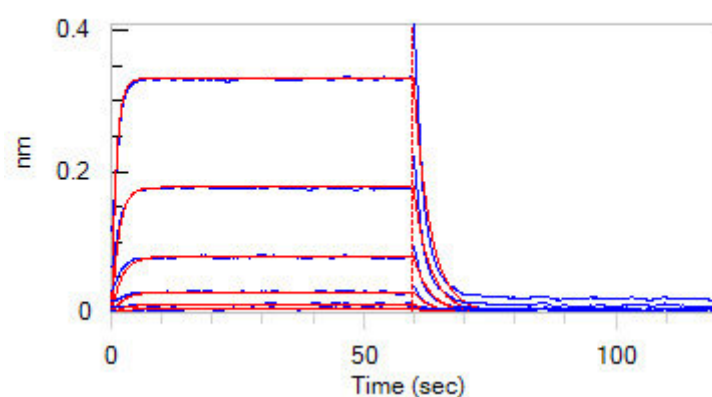
Paguma larvata ACE2, His Tag (Cat. No. AC2-P5248) immobilized on CM5 Chip can bind SARS-CoV-2 S1 protein, His Tag (Cat. No. S1N-C52H4) with an affinity constant of 47.5 µM as determined in a SPR assay (Biacore T200) (Routinely tested).



Paguma larvata ACE2, His Tag (Cat. No. AC2-P5248) immobilized on CM5 Chip can bind SARS-CoV-2 S protein RBD, His Tag (Cat. No. SPD-C52H3) with an affinity constant of 29 µM as determined in a SPR assay (Biacore T200) (Routinely tested).



Paguma larvata ACE2, His Tag (Cat. No. AC2-P5248) immobilized on CM5 Chip can bind SARS S1 protein, His Tag (Cat. No. S1N-S52H5) with an affinity constant of 0.796 µM as determined in a SPR assay (Biacore T200) (Routinely tested).

**Bioactivity-BLI**

Loaded SARS-CoV-2 S protein RBD, Fc Tag (Cat. No. SPD-C5255) on Protein A Biosensor, can bind Paguma larvata ACE2, His Tag (Cat. No. AC2-P5248) with an affinity constant of 1.17  $\mu$ M 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 losinipril, 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.

**References**

- (1) [Turner AJ, et al, 2002, Can. J. Physiol. Pharmacol. 80 \(4\): 346–53.](#)
- (2) [Katovich MJ, et al, 2005, Exp. Physiol. 90 \(3\): 299–305.](#)
- (3) [Donoghue M, et al, 2000, Circ. Res. 87:E1-E9.](#)
- (4) [Tipnis S.R, et al, 2000, J. Biol. Chem. 275:33238-33243.](#)
- (5) [Vickers C, et al, 2002, J. Biol. Chem. 277:14838-14843.](#)

Please contact us via [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.