

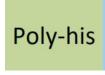
## **Synonym**

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**



ACE2(Gln 18 - Thr 740) Q56NL1-1

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  $\mu g$  by the LAL method / rFC method.

# **Purity**

>90% as determined by SDS-PAGE.

#### **Formulation**

Supplied as  $0.2~\mu m$  filtered solution in 50 mM Tris, 150 mM NaCl, 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.

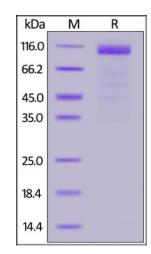
#### **Storage**

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**

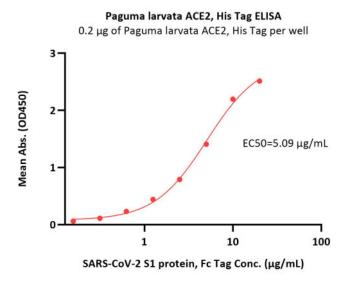


Paguma larvata ACE2, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%.

# **Bioactivity-ELISA**





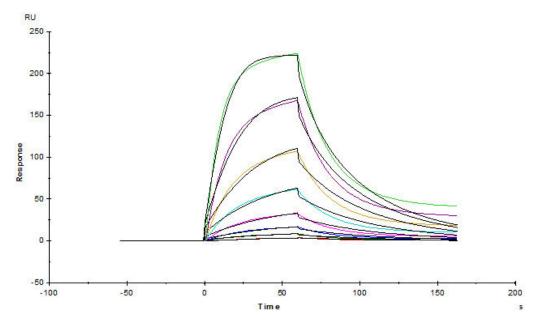


Immobilized Paguma larvata ACE2, His Tag (Cat. No. AC2-P5248) at 2 μg/mL (100 μL/well) can bind SARS-CoV-2 S1 protein, Fc Tag (Cat. No. S1N-C5255) with a linear range of  $0.156-5 \mu g/mL$  (Routinely tested).

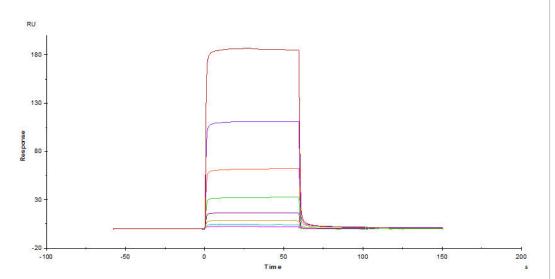
# Paguma larvata ACE2, His Tag ELISA $0.2~\mu g$ of Paguma larvata ACE2, His Tag per well Mean Abs. (0D450) EC50=3.41 μg/mL 0.1 10 100 SARS-CoV-2 S protein RBD, Fc Tag Conc. (µg/mL)

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  $\mu$ g/mL (Routinely tested).

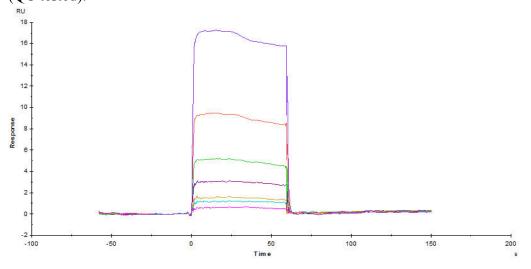
# **Bioactivity-SPR**



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 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-CoV-2 S1 protein, His Tag with an affinity constant of 47.5 μM as determined in a SPR assay (Biacore T200) (Routinely tested).

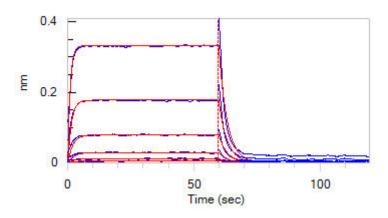
# **Bioactivity-BLI**



# Paguma Iarvata ACE2 / ACEH Protein, His Tag (SPR verified)







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 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.

