

# Human ACE2/ACEH Protein

Cat. No. ACE-HM401



## Description

<b>Source</b>	Recombinant Human ACE2/ACEH Protein is expressed from HEK293 with His tag and Avi tag at the C-Terminus. It contains Gln18-Ser740.
<b>Accession</b>	Q9BYF1-1
<b>Molecular Weight</b>	The protein has a predicted MW of 86.5 kDa. Due to glycosylation, the protein migrates to 95-110 kDa based on Tris-Bis PAGE result.
<b>Endotoxin</b>	Less than 1EU per µg by the LAL method.
<b>Purity</b>	> 95% as determined by Tris-Bis PAGE > 95% as determined by HPLC

## Formulation and Storage

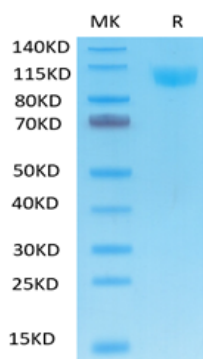
<b>Formulation</b>	Lyophilized from 0.22µm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
<b>Reconstitution</b>	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 µg/ml is recommended. Dissolve the lyophilized protein in distilled water.
<b>Storage</b>	-20 to -80°C for 12 months as supplied from date of receipt. -80°C for 3-6 months after reconstitution. 2-8°C for 2-7 days after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

## Background

ACE2 (Angiotensin I Converting Enzyme 2) is a Protein Coding gene. Diseases associated with ACE2 include Severe Acute Respiratory Syndrome and Neurogenic Hypertension. The protein encoded by this gene belongs to the angiotensin-converting enzyme family of dipeptidyl carboxypeptidases and has considerable homology to human angiotensin 1 converting enzyme. This secreted protein catalyzes the cleavage of angiotensin I into angiotensin 1-9, and angiotensin II into the vasodilator angiotensin 1-7.

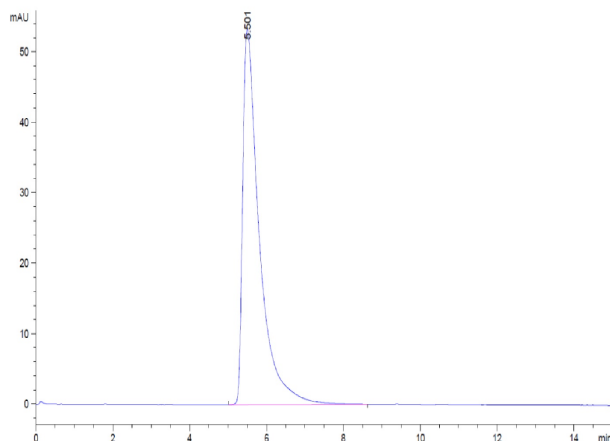
## Assay Data

### Tris-Bis PAGE



Human ACE2 on Tris-Bis PAGE under reduced condition. The purity is greater than 95%.

### SEC-HPLC



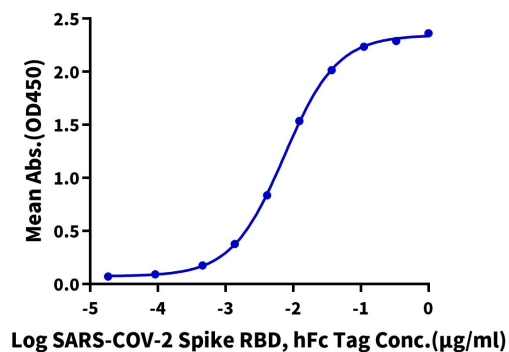
The purity of Human ACE2 is greater than 95% as determined by SEC-HPLC

Assay Data

ELISA Data

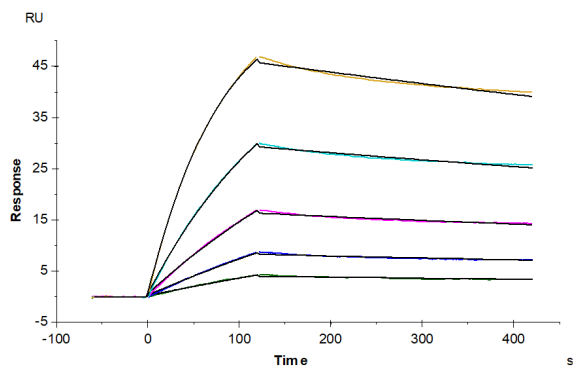
**Human ACE2, His Tag ELISA**

0.5µg Human ACE2, His Tag Per Well



Immobilized Human ACE2, His Tag at 5µg/ml (100µl/well) on the plate. Dose response curve for SARS-COV-2 Spike RBD, hFc Tag with the EC50 of 7.4ng/ml determined by ELISA (QC Test).

SPR Data



SARS-COV-2 Spike S1, hFc Tag captured on CM5 Chip via Protein A can bind Human ACE2, His Tag with an affinity constant of 3.80 nM as determined in SPR assay (Biacore T200).