

For Research Use Only

# Recombinant Human ACE2 protein (hFc Tag)



Catalog Number: Eg0124

## Basic Information

**ED50:**  
36-146 ng/mL

**GeneID:**  
59272

**Species:**  
Human

**Accession:**  
Q9BYF1

**Purity:**  
>90 %, SDS-PAGE

## Technical Specifications

**Purity:**  
>90 %, SDS-PAGE

**Endotoxin Level:**  
<1.0 EU/  $\mu$ g protein, LAL method

**Source:**  
HEK293-derived Human ACE2 protein Gln18-Ser740 (Accession# Q9BYF1) with a human IgG1 Fc tag at the N-terminus.

**Predicted Molecular Mass:**  
109.6 kDa

**SDS-PAGE:**  
110-140 kDa, reducing (R) conditions

**Formulation:**  
Lyophilized from sterile PBS, pH 7.4. Normally 5% trehalose and 5% mannitol are added as protectants before lyophilization.

## Biological Activity

Immobilized SARS-CoV-2 Spike RBD (Myc tag, His tag) at 2  $\mu$ g/mL (100  $\mu$ L/well) can bind Human ACE2 (hFc tag) with a linear range of 36-146 ng/mL.

## Storage and Shipping

**Storage:**  
It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

- 12 months from the date of receipt, -20°C to -80°C as lyophilized proteins.
- 3 months, -20°C to -80°C under sterile conditions after reconstitution.

**Shipping:**  
The product is shipped at ambient temperature. Upon receipt, store it immediately at the recommended temperature.

## Reconstitution

Briefly centrifuge the tube before opening. Reconstitute at 0.1-0.5 mg/mL in sterile water.

## Background

Angiotensin-converting enzyme 2 (ACE2), a critical regulator of the renin-angiotensin system (RAS), belongs to the peptidase M2 family. It plays an important role in cardiovascular homeostasis by regulating vascular tone, fluid, and electrolyte balance. ACE2 functions as a carboxymonopeptidase hydrolyzing the cleavage of a single C-terminal residue from Angiotensin-II (Ang-II), the key peptide hormone of RAS, to form Angiotensin-(1-7) (Ang-(1-7)), which binds to the G-protein-coupled Mas receptor and activates signaling pathways that counteract the pathways activated by Ang-II. ACE2 is expressed in a variety of tissues, including the kidneys, testes, heart, and intestines, and is particularly enriched in lung epithelium. Recent studies have shown that increased ACE2 expression is likely to help prevent secondary fibrosis changes following COVID-19 pneumonia.

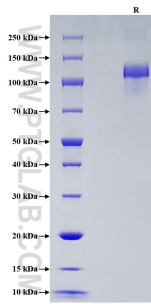
## References

1. Li Q. et al. (2020). Clin Sci (Lond). 134:2581-2595.
2. Li Y. et al. (2020). Biochem Biophys Res Commun. 526:947-952.
3. Hikmet F. et al. (2020). Mol Syst Biol. 16:e9610.
4. Chaudhry F. et al. (2020). Open Heart. 7:e001424.

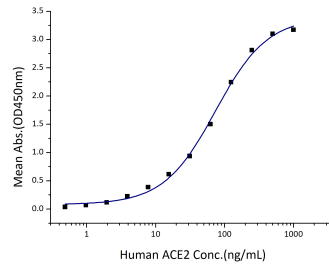
## Synonyms

ACE2, ACE-2, ACEH

## Selected Validation Data



Purity of Recombinant Human ACE2 was determined by SDS-PAGE. The protein was resolved in an SDS-PAGE in reducing (R) conditions and stained using Coomassie blue.



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For technical support and original validation data for this product please contact

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