

Recombinant Human ACE2 Protein, His tagged, Biotin Labeled

Cat. No. ACE2-034H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Human ACE2 protein (Gln18-Ser740) with N-terminus His tag is expressed in HEK293 cells and Biotinylated in vitro.
Species	Human
Source	HEK293
ProteinLength	Biotin
Conjugation/Label	18-740 aa
Description	Angiotensin-converting enzyme 2 (ACE2) is a type I transmembrane zinc metalloprotease with about 60% homology to ACE, consisting of 805 amino acids including a signal peptide, catalytic domain, membrane anchor, and cytoplasmic tail. ACE2 regulates the renin-angiotensin system by converting angiotensin I to angiotensin 1-9 and angiotensin II to the vasodilator angiotensin 1-7, thus counteracting vasoconstriction and playing a key role in cardiovascular and renal function. ACE2 also serves as the functional receptor for human coronaviruses SARS-CoV, SARS-CoV-2, and HCoV-NL63, facilitating viral entry. Its expression is high in lung, heart, kidney, intestine, testis, and vascular cells. Beyond cardiovascular regulation, ACE2 is involved in respiratory disease pathogenesis, including acute respiratory distress syndrome, and has been linked to diabetes and hypertension. Additionally, its homolog collectrin is implicated in amino acid transport and genetic disorders like Hartnup disease.

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Form	Liquid, 1×PBS buffer, pH7.4, 0.22 µm filtered
Molecular Mass	This protein has a predicted molecular weight of 86.5 kDa. Under DTT-reducing conditions, the protein migrates at approximately 90-100 kDa on SDS-PAGE.
Purity	>95% based on SDS-PAGE under reducing condition
Applications	ELISA, BLI
Storage	Briefly centrifuge the vial upon receipt. An unopened vial can be stored at 4 centigrade for up to 2 weeks, or at -20 centigrade or below for up to six months. The protein may be further diluted to 0.1 mg/mL using 0.22 µm-filtered PBS buffer (pH 7.4). For long-term storage, the diluted stock solution should be aliquoted and stored at ≤ -70 centigrade to minimize freeze-thaw cycles. If additional dilution is required, carrier proteins such as FBS or BSA should be added to maintain protein stability.
Concentration	25 µg size is bottled at 0.2 mg/mL concentration. 100 µg size is supplied at a lot-specific concentration.

GENE INFORMATION

Gene Name	ACE2 angiotensin I converting enzyme (peptidyl-dipeptidase A) 2 [Homo sapiens (human)]
Official Symbol	ACE2
Synonyms	ACE2; angiotensin I converting enzyme (peptidyl-dipeptidase A) 2; angiotensin-converting enzyme 2; metalloprotease MPROT15; ACE-related carboxypeptidase; angiotensin I converting enzyme 2; angiotensin-converting enzyme homolog; ACEH;
Gene ID	59272

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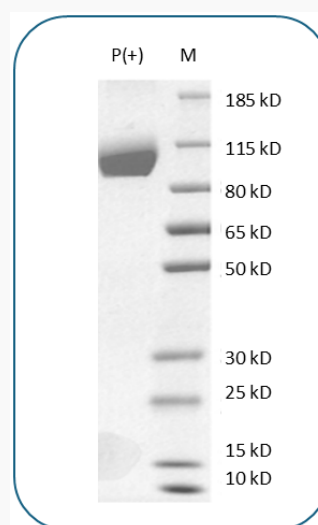
mRNA Refseq [NM_021804](#)

Protein Refseq [NP_068576](#)

MIM [300335](#)

UniProt ID [Q9BYF1](#)

SDS-PAGE



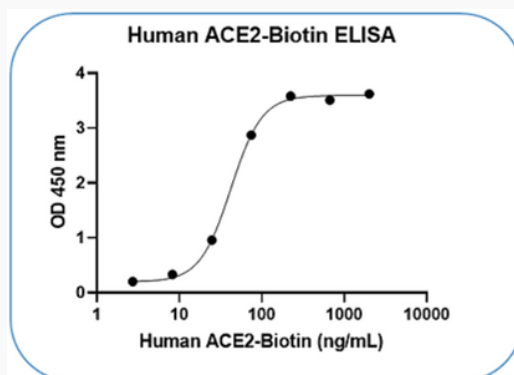
Biotinylated Human ACE2 (N-His) Protein on SDS-PAGE under reducing conditions.
The gel was stained for 1 hour with BlinkBlue Protein Staining Buffer. The purity of this protein appears to be greater than 95%.

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ELISA



Recombinant SARS-CoV-2 Spike Trimer protein is coated at 2 µg/mL (200 ng/well).
Biotinylated Human ACE2 (N-His) protein can bind spike trimer in the dose-dependent manner.

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