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Human ACE-2 Protein (C-His-Avi)

Catalog Number:	601101, 601102
Size:	25 ug, 100 ug
Target Name:	ACE2, angiotensin converting Enzyme 2, ACEH
Regulatory Status:	RUO

PRODUCT DETAILS

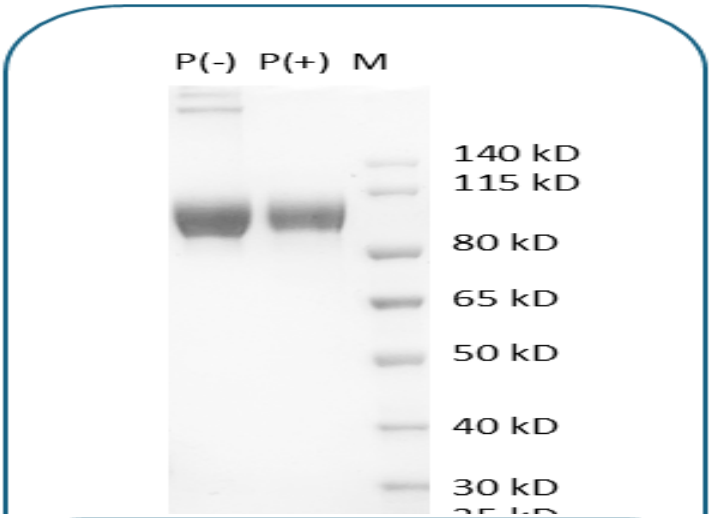
Application:	ELISA, BLI
Format:	Liquid, Purified
Expression Host:	CHO
Species:	Human
Accession Number:	Q9BYF1
Sources:	Human ACE2 protein (Gln18-Ser740) with C-terminus His-Avi tag is expressed in CHO cells.
Molecular Weight:	This protein has a predicted molecular weight of 87.4 kDa. Under DTT-reducing conditions, the protein migrates at approximately 90-100 kDa on SDS-PAGE.
Affinity Tag:	C-His-Avi
Purity:	>95% based on SDS-PAGE under reducing condition
Formulation:	1xPBS buffer, pH7.4, 0.22 µm filtered
Endotoxin level:	Not tested
Protein Concentration:	25µg size is bottled at 0.2mg/mL concentration. 100 µg size is supplied at a lot-specific concentration.
Storage and Handling:	Briefly centrifuge the vial upon receipt. An unopened vial can be stored at 4°C for up to 2 weeks, or at -20°C 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°C to minimize freeze-thaw cycles. If additional dilution is required, carrier proteins such as FBS or BSA should be added to maintain protein stability.

BACKGROUND INFORMATION

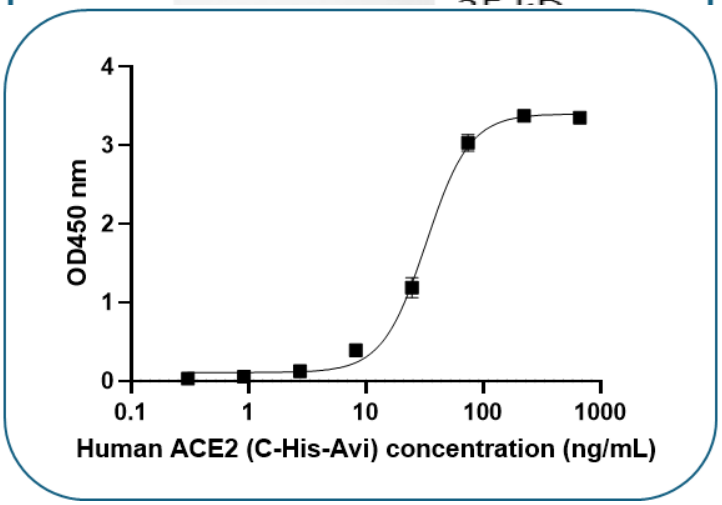
Angiotensin-converting enzyme 2 (ACE2) is a type I transmembrane zinc metalloprotease with about 60% homology to ACE, consisting of 805 amino acids including a signal peptide, catalytic domain, membrane anchor, and cytoplasmic tail. ACE2 regulates the renin-angiotensin system by converting angiotensin 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.

PRODUCT DATA



Human ACE2 (C-His-Avi) Protein on SDS-PAGE under reducing (P+) and non reducing (P-) conditions. The gel was stained for 1 hour with BlinkBlue Protein Staining Buffer (Catalog 700102). The purity of this protein appears to be greater than 95%.



SARS-CoV-2 Spike RBD Protein (C-Fc, Catalog # 602501) is coated at 2 µg/mL (200 ng/well). Human ACE2 with C-Avi-His can bind RBD in the dose dependent manner. The EC50 is in the range of 20-50 ng/mL

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