

Active Recombinant Human ACE2 Protein, hlgG/His-tagged

Cat. No. ACE2-026H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human ACE-2, fused to His-tag at C-terminus, was expressed in HEK293 cell and purified by using conventional chromatography techniques.
Species	Human
Source	HEK293
Description	The protein encoded by this gene belongs to the angiotensin-converting enzyme family of dipeptidyl carboxydipeptidases 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. ACE2 is known to be expressed in various human organs, and its organ- and cell-specific expression suggests that it may play a role in the regulation of cardiovascular and renal function, as well as fertility. In addition, the encoded protein is a functional receptor for the spike glycoprotein of the human coronavirus HCoV-NL63 and the human severe acute respiratory syndrome coronaviruses, SARS-CoV and SARS-CoV-2, the latter is the causative agent of coronavirus disease-2019 (COVID-19). Multiple splice variants have been found for this gene and the dACE2 (or MIRb-ACE2) splice variant has been found to be interferon inducible.
Form	Liquid
Bio-activity	Measured by its binding ability in a functional ELISA with SARS-CoV-2 Spike RBD. The ED50 range ≤ 100 ng/mL. Specific activity is > 250 pmol/min/ μ g, and is defined as

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the amount of enzyme that hydrolysis 1.0 pmole of Mca-YVADAPK(Dnp)-OH per minute at pH 7.5, at 25 centigrade.

Molecular Mass 110.8 kDa

AA Sequence

QSTIEEQAKTFLDKFNHEAEDLFYQSSLASWNYNTNITEENVQNMNAGDKWSAFL
 KEQSTLAQMYPLQEIQNLTVKQLQLALQQNGSSVLSEDKSKRLNLTILNTMSTIYSTGK
 VCNPDNPQECLLLEPGLNEIMANSLDYNERLWAWESWRSEVGKQLRPLYEEYVVL
 KNEMARANHVEDYGDYWRGDYEVNGVDGYDYSRGLIEDVEHTFEEIKPLYEHLH
 AYYRAKLMNAYPSYISPIGCLPAHLLGDMWGRFWTNLYSLTVPFQKPNIDVTDAM
 VDQAWDAQRIFKEAEKFFVSVGLPNMTQGFWENSMLTDPGNVQKAVCHPTAWDL
 GKGDFRILMCTKVTMDDFLTAHHEMIGHIQYDMAYAAQPFLLRNGANEGFHEAVGEI
 MSLAATPKHLKSIGLLSPDFQEDNETEINFLKQALTIVGTLPTFTYMLEKWRWMVFK
 GEIPKDQWMKKWWEMKREIVGVVEPVPHDETYCDPASLFHVSNDYSFIRYYTRTLY
 QFQFQEALCQAAKHEGPLHKCDISNSTEAGQKLFNMLRLGKSEPWTALENVVGAK
 NMNVRPLLNYFEPLFTWLKDQNKNSFVGWSTDWSPYADQSIKVRISLKSALGDKAY
 EWNDNEMYLFRSSVAYAMRQYFLKVKNQMILFGEEDVRVANLKPRI SFNFFVTAPK
 NVSDIIPRTEVEKAIRMSRSRINDAFRLNDNSLEFLGIQPTLGPPNQPPVS

Endotoxin < 1 EU/μg of protein (determined by LAL method)

Purity > 90% by SDS-PAGE

Applications SDS-PAGE, Enzyme Activity, Bioactivity

Storage Can be stored at +2 to +8 centigrade for 1 week. For long term storage, aliquot and store at -20 to -105 centigrade. Avoid repeated freezing and thawing cycles.

Concentration 0.5 mg/mL (determined by Absorbance at 280nm)

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Storage Buffer Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

GENE INFORMATION

Gene Name [ACE2](#) angiotensin I converting enzyme 2 [Homo sapiens (human)]

Official Symbol [ACE2](#)

Synonyms ACE2; angiotensin I converting enzyme 2; ACEH; angiotensin-converting enzyme 2; ACE-related carboxypeptidase; angiotensin I converting enzyme (peptidyl-dipeptidase A) 2; angiotensin-converting enzyme homolog; angiotensin-converting enzyme-related carboxypeptidase; metalloprotease MPROT15; peptidyl-dipeptidase A; truncated angiotensin converting enzyme 2; EC 3.4.17.23

Gene ID [59272](#)

mRNA Refseq [NM_021804](#)

Protein Refseq [NP_068576.1](#)

MIM [300335](#)

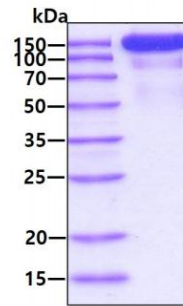
UniProt ID [Q9BYF1](#)

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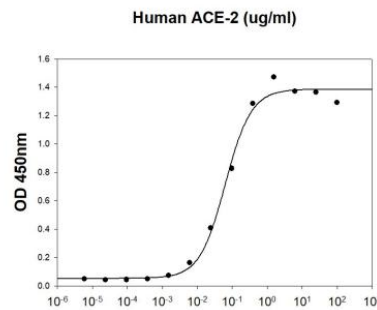
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SDS-PAGE




3 μ g by SDS-PAGE under reducing condition and visualized by coomassie blue stain


Biological Activity



SARS-CoV-2 Spike RBD is coated at 5 μ g/mL (100 μ L/well) can bind Human ACE-2. The ED50 range \leq 100ng/mL.

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