

ACE2 Protein, Mouse (HEK293, His)

Cat. No.:	HY-P74434
Synonyms:	Angiotensin-converting enzyme 2; ACE-2; ACEH; ACE-related carboxypeptidase
Species:	Mouse
Source:	HEK293
Accession:	Q8R0I0-1 (Q18-T740)
Gene ID:	70008
Molecular Weight:	85-110 kDa

PROPERTIES

AA Sequence

Q S L T E E N A K T	F L N N F N Q E A E	D L S Y Q S S L A S	W N Y N T N I T E E
N A Q K M S E A A A	K W S A F Y E E Q S	K T A Q S F S L Q E	I Q T P I I K R Q L
Q A L Q Q S G S S A	L S A D K N K Q L N	T I L N T M S T I Y	S T G K V C N P K N
P Q E C L L L E P G	L D E I M A T S T D	Y N S R L W A W E G	W R A E V G K Q L R
P L Y E E Y V V L K	N E M A R A N N Y N	D Y G D Y W R G D Y	E A E G A D G Y N Y
N R N Q L I E D V E	R T F A E I K P L Y	E H L H A Y V R R K	L M D T Y P S Y I S
P T G C L P A H L L	G D M W G R F W T N	L Y P L T V P F A Q	K P N I D V T D A M
M N Q G W D A E R I	F Q E A E K F F V S	V G L P H M T Q G F	W A N S M L T E P A
D G R K V V C H P T	A W D L G H G D F R	I K M C T K V T M D	N F L T A H H E M G
H I Q Y D M A Y A R	Q P F L L R N G A N	E G F H E A V G E I	M S L S A A T P K H
L K S I G L L P S D	F Q E D S E T E I N	F L L K Q A L T I V	G T L P F T Y M L E
K W R W M V F R G E	I P K E Q W M K K W	W E M K R E I V G V	V E P L P H D E T Y
C D P A S L F H V S	N D Y S F I R Y Y T	R T I Y Q F Q F Q E	A L C Q A A K Y N G
S L H K C D I S N S	T E A G Q K L L K M	L S L G N S E P W T	K A L E N V V G A R
N M D V K P L L N Y	F Q P L F D W L K E	Q N R N S F V G W N	T E W S P Y A D Q S
I K V R I S L K S A	L G A N A Y E W T N	N E M F L F R S S V	A Y A M R K Y F S I
I K N Q T V P F L E	E D V R V S D L K P	R V S F Y F F V T S	P Q N V S D V I P R
S E V E D A I R M S	R G R I N D V F G L	N D N S L E F L G I	H P T L E P P Y Q P
P V T			

Biological Activity

Measured by its ability to cleave a fluorogenic peptide substrate, Mca-YVADAPK(Dnp)-OH. The specific activity is ≤ 462.95 pmol/min/ μ g, as measured under the described conditions.

Appearance

Lyophilized powder

Formulation

Lyophilized from a 0.2 μ m filtered solution of 25 mM Tris-HCl, 150 mM NaCl, 1 mM ZnCl₂, pH 7.4 or PBS, pH 7.4.

Endotoxin Level

<1 EU/ μ g, determined by LAL method.

Reconstitution

It is not recommended to reconstitute to a concentration less than 100 μ g/mL in ddH₂O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).

Storage & Stability

Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.

Shipping

Room temperature in continental US; may vary elsewhere.

DESCRIPTION**Background**

Angiotensin-converting enzyme 2 (ACE2), a metallopeptidase, is the functional receptor for SARS-CoV. ACE2 can be immunoprecipitated by the S1 domain of the SARS-CoV virus and that ACE2 can promote viral replication. ACE2 is abundantly present in humans in the epithelia of lung and small intestine, which might provide possible routes of entry for the SARS-CoV. ACE2, previously identified as the cellular receptor for SARS-CoV, also acts as a receptor of the new coronavirus (SARS-CoV-2). ACE2 is also thought to be an essential regulator of cardiac function and blood pressure control, possibly by acting as a natural counterpart of ACE1^{[1][2]}.

REFERENCES

[1]. Hamming I, et, al. Tissue distribution of ACE2 protein, the functional receptor for SARS coronavirus. A first step in understanding SARS pathogenesis. J Pathol. 2004 Jun;203(2):631-7.

[2]. Yang J, et, al. Molecular interaction and inhibition of SARS-CoV-2 binding to the ACE2 receptor. Nat Commun. 2020 Sep 11;11(1):4541.

Caution: Product has not been fully validated for medical applications. For research use only.

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