

## Recombinant Human Angiotensin-Converting Enzyme 2, His (HEK293-expressed)

<b>Cat. No.:</b>	HY-P7441
<b>Synonyms:</b>	Angiotensin-Converting Enzyme 2; ACE-Related Carboxypeptidase; Angiotensin-Converting Enzyme Homolog; ACEH; Metalloprotease MPROT15; ACE2
<b>Species:</b>	Human
<b>Source:</b>	HEK 293
<b>Accession:</b>	Q9BYF1
<b>Gene ID:</b>	59272
<b>Molecular Weight:</b>	Approximately 103.0 kDa

### PROPERTIES

#### AA Sequence

QSTIEEQAKT	FLDKFNHEAE	DLFYQSSLAS	WNYNTNITEE
NVQNMNNAGD	KWSAFLKEQS	TLAQMYP LQE	IQNLTVKLQL
QALQQNGSSV	LSEDKSKRLN	TILNTMSTIY	STGKVCNPDN
PQECLLLEPG	LNEIMANSLD	YNERLWAWES	WRSEV GKQLR
PLYEEYVVLK	NEMARANHYE	DYGDYWRGDY	EVNGVDGYDY
SRGQLIEDVE	HTFEEIKPLY	EHLHAYVRAK	LMNAYPSYIS
PIGCLPAHLL	GDMWGRFWTN	LYSLTVPFGQ	KPNIDVTDAM
VDQAWDAQRI	FKEAEKFFVS	VGLPNMTQGF	WENSMLTDPG
NVQKAVCHPT	AWDLGKGD FR	ILMCTKVTMD	DFLTAHHEMG
HIQYDMAYAA	QPFLLRNGAN	EGFHEAVGEI	MSLSAATPKH
LKSIGLLSPD	FQEDNETEIN	FLLKQALTIV	GTL PFTYMLE
KWRWMVFKGE	IPKDQWMKKW	WEMKREIVGV	VEPVP HDETY
CDPASLFHVS	NDYSFIRYYT	RTL YQFQFQE	ALCQAAKHEG
PLHKCDISNS	TEAGQKLFNM	LRLGKSEPWT	LALENVV GAK
NMNVRPL LNY	FEP LFTWLKD	QNKNSFVGWS	TDWSPYADQS
IKVRISL KSA	LGDKAYEWN D	NEMYLFRSSV	AYAMRQYFLK
VKNQMILFGE	EDVRVANLKP	RISFNFFVTA	PKNVSDIIPR
TEVEKAIRMS	RSRINDA FRL	NDNSLEFLGI	QPTLGPPNQP
PVSHHHHHH			

#### Biological Activity

Binding ability is measured by functional ELISA, 10 µg/mL (100 µL/well) of immobilized recombinant human Angiotensin-Converting Enzyme 2, His can bind to S Proetin RBD, C-mFc. The ED50 of recombinant S Protein RBD, C-mFc is 62 ng/mL.

#### Appearance

Solution.

#### Formulation

Supplied as a 0.2 µm filter solution of 20 mM Tris, 300 mM NaCl, 1 mM ZnCl<sub>2</sub>, 10% Glycerol, pH 7.4.

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Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconstitution	N/A
Storage & Stability	Recombinant Human Angiotensin-Converting Enzyme 2, His (HEK293-expressed) (rHuACE-2, His) is stored at -20°C. It is stable at 4°C for 1 week or -20°C for longer. It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Shipping with dry ice.

## DESCRIPTION

### Background

Angiotensin-Converting Enzyme 2 (ACE2) is a type I integral membrane protein which functions as a carboxypeptidase, cleaving a single hydrophobic/basic residue from the C-terminus of its substrates. ACE2 efficiently hydrolyses the potent vasoconstrictor angiotensin II to angiotensin. It is a consequence of this action that ACE2 participates in the renin-angiotensin system. However, ACE2 also hydrolyses dynorphin A (1–13), apelin-13 and des-Arg9 bradykinin. The role of ACE2 in these peptide systems has yet to be revealed. A physiological role for ACE2 has been implicated in hypertension, cardiac function, heart function and diabetes, and as a receptor of the severe acute respiratory syndrome coronavirus. This paper reviews the biochemistry of ACE2 and discusses key findings such as the elucidation of crystal structures for ACE2 and testicular ACE and the development of ACE2 inhibitors that have now provided a basis for future research on this enzyme.

## REFERENCES

- [1]. Angiotensin-converting enzyme 2 (ACE2) as a SARS-CoV-2 receptor: molecular mechanisms and potential therapeutic target.
- [2]. Warner FJ, et al. Angiotensin-converting enzyme-2: a molecular and cellular perspective. *Cell Mol Life Sci.* 2004 Nov;61(21):2704-13.

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

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