

ACE2 Protein, Human (HEK293, hFc, solution)

Cat. No.:	HY-P7442
Synonyms:	Angiotensin-Converting Enzyme 2; ACE-Related Carboxypeptidase; Angiotensin-Converting Enzyme Homolog; ACEH; Metalloprotease MPROT15; ACE2
Species:	Human
Source:	HEK293
Accession:	Q9BYF1 (Q18-S740)
Gene ID:	59272
Molecular Weight:	110-140 kDa

PROPERTIES

AA Sequence

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QSTIEEQAKT   FLDKFNHEAE   DLFYQSSLAS   WNYNTNITEE
NVQNMNNAGD   KWSAFLKEQS   TLAQMYPLQE   IQNLTVKLQL
QALQQNGSSV   LSEDKSKRLN   TILNTMSTIY   STGKVCNPDN
PQECLLLEPG   LNEIMANSLD   YNERLWAWES   WRSEV GKQLR
PLYEEYVVLK   NEMARANHYE   DYGDYWRGDY   EVNGVDGYDY
SRGQLIEDVE   HTFEEIKPLY   EHLHAYVRAK   LMNAYPSYIS
PIGCLPAHLL   GDMWGRFWTN   LYSLTVPPGQ   KPNIDVTDAM
VDQAWDAQRI   FKEAEKFFVS   VGLPNMTQGF   WENSMLTDPG
NVQKAVCHPT   AWDLGKGD FR   ILMCTKVTMD   DFLTAHHEMG
HIQYDMAYAA   QPFLLRNGAN   EGFHEAVGEI   MSLSAATPKH
LKSIGLLSPD   FQEDNETEIN   FLLKQALTIV   GTLPFTYMLE
KWRWMVFKGE   IPKDQWMKKW   WEMKREIVGV   VEPVPHDETY
CDPASLFHVS   NDYSFIRYYT   RTLYQFQFQE   ALCQAAKHEG
PLHKCDISNS   TEAGQKLFNM   LRLGKSEPWT   LALENVV GAK
NMNVRPLLNY   FEPLFTWLKD   QNKNSFVGWS   TDWSPYADQS
IKVRISLKSA   LGDKAYEWN D   NEMYLFRSSV   AYAMRQYFLK
VKNQMILFGE   EDVRVANLKP   RISFNFFVTA   PKNVSDIIPR
TEVEKAIRMS   RSRINDA FRL   NDNSLEFLGI   QPTLGPPNQP
PVS
  
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Biological Activity	Immobilized 2019-nCoV S Protein RBD-SD1-mFc at 2 µg/ml (100 µl/well) can bind Human ACE-2-Fc. The ED ₅₀ of Human ACE-2-Fc is 25-250 ng/mL.
Appearance	Solution
Formulation	Supplied as a 0.2 µm filtered solution of 20 mM Tris-HCl, 300 mM NaCl, 10% Glycerol, 100 mM Glycine, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	N/A

Storage & Stability

Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.

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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