

ACE2 Protein, Human (Biotinylated, HEK293, mFc-Avi)

Cat. No.:	HY-P700455
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:	114.9 kDa

PROPERTIES

AA Sequence

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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   LYSLTVPPFGQ   KPNIDVTDAM
VDQAWDAQRI   FKEAEKFFVS   VGLPNMTQGF   WENSMLTDPG
NVQKAVCHPT   AWDLGGKDFR   ILMCTKV TMD   DFLTAHHEMG
HIQYDMAYAA   QPFLLRNGAN   EGFHEAVGEI   MSLSAATPKH
LKSIGLLSPD   FQEDNETEIN   FLLKQALTIV   GTLPFTYMLE
KWRWMVFKGE   IPKDQWMKKW   WEMKREIVGV   VEPVPHDETY
CDPASLFHVS   NDYSFIRYYT   RTLYQFQFQE   ALCQAAKHEG
PLHKCDISNS   TEAGQKLFNM   LRLGKSEPWT   LALENVV GAK
NMNVRPL LNY   FEPLFTWLKD   QNKNSFVGWS   TDWSPYADQS
IKVRISLKSA   LGDKAYEWND   NEMYLFRSSV   AYAMRQYFLK
VKNQMILFGE   EDVRVANLKP   RISFNFFVTA   PKNVSDIIPR
TEVEKAIRMS   RSRINDAFRL   NDNSLEFLGI   QPTLGP PNQP
PVS
  
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Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of 20 mM Tris-HCl, 0.5 M NaCl, 6% Trehalose, pH 8.0
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O.
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

ACE2, an indispensable counter-regulatory carboxypeptidase within the renin-angiotensin hormone system, plays a pivotal role in maintaining cardiovascular homeostasis by intricately regulating blood volume and systemic vascular resistance. Through its enzymatic activity, ACE2 converts angiotensin I to angiotensin 1-9 and angiotensin II to angiotensin 1-7, exerting anti-hypertrophic effects in cardiomyocytes and acting as a vasodilator with anti-proliferative properties. Beyond its central role in the renin-angiotensin system, ACE2 exhibits broad enzymatic activity, cleaving various vasoactive peptides such as neurotensin, kinetensin, and des-Arg bradykinin. Moreover, ACE2 is proficient in cleaving other biological peptides, including apelins, casomorphins, and dynorphin A. Notably, ACE2's C-terminus, homologous to collectrin, orchestrates the trafficking of the neutral amino acid transporter SL6A19 to the gut epithelial cell membrane, thereby regulating its surface expression and catalytic activity. Importantly, ACE2 also serves as a receptor for human coronaviruses SARS-CoV, SARS-CoV-2, and HCoV-NL63, implicating it in microbial infection pathways.

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

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