

ACE2 Protein, Rhesus Macaque (HEK293, Fc)

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| Cat. No.: | HY-P72810 |
| Synonyms: | Angiotensin-converting enzyme 2; ACE-2; ACEH; ACE-related carboxypeptidase |
| Species: | Rhesus Macaque |
| Source: | HEK293 |
| Accession: | ACI04564.1 (M1-V739) |
| Gene ID: | 712790 |
| Molecular Weight: | Approximately 110.7 kDa |

PROPERTIES

AA Sequence

| | | | |
|--------------|-------------|-------------|-------------|
| MSGSSWLLLS | LVAVTA AQST | IEEQAKTFLD | KFNHEAEDLF |
| YQSSLASWNY | NTNITEENVQ | NMNNAGEKWS | AFLKEQSTLA |
| QMYPLQEIQN | LTVKLQLQAL | QQNGSSVLSE | DKSKRLNTIL |
| NTMSTIYSTG | KVCNPNNPQE | CLLLDPGLNE | IMEKSLDYNE |
| RLWAWEGWRS | EVGKQLRPLY | E EYVVLKNEM | ARANHYKDYG |
| DYWRGDYEVN | GVDGYDYNRD | QLIEDVERTF | EEIKPLYEHL |
| HAYVRAKLMN | AYPSYISPTG | CLPAHLLGDM | WGRFWTNLYS |
| LTVPFGQKPN | IDVTDAMVNQ | AWNAQRIFKE | A EKFFVSVGL |
| PNMTQGFWEN | SMLTDPGNVQ | KVVCHPTAWD | LGKGD FRIIM |
| CTKVTMDDFL | TAHHEMGHIQ | YDMAYAAQPF | LLRNGANEGF |
| HEAVGEIMSL | SAATPKHLKS | IGLLSPDFQE | DNETEINFL L |
| KQALTI VGT L | PFTYMLEKWR | WMVFKDEIPK | DQWMKKW WEM |
| KREIVGVVEP | VPHDETYCDP | ASLFHVSNDY | SFIRYYTRTL |
| YQFQFQEALC | QAAKHEGPLH | KCDISNSTEA | GQKLLNMLKL |
| GKSEPWT LAL | ENVVGAKNMN | VRPLLNYFEP | LFTWLK DQNK |
| NSFVGWSTDW | SPYADQSIKV | RISLKSALGD | KAYE WNDNEM |
| YLFRRSSVAYA | MRTYFLEIKH | QTILFGEEDV | RVADL KPRIS |
| FNFYVTAPKN | VSDIIPRTEV | E EAIRISRSR | I NDAFRLNDN |
| SLEFLGIQTT | LAPPYQSPV | | |

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 PBS, pH 7.4. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.

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 ddH₂O.

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 (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 apelin, 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^{[1][2]}.

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

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