

## ACE2 Protein, Paguma larvata, Recombinant (hFc)

## General Information

Synonyms: ACE-related carboxypeptidase;Angiotensin-converting enzyme 2;ACE2

Protein Construction: 18-740 aa

Species: Paguma larvata

Expression Host: HEK293 Cells

Accession: Q56NL1

Molecular Weight: 112.7 kDa (predicted)

AA Sequence: QSTTEELAKTFLETFNYEAQELSYQSSVASWNYNTNITDENAKNMNEAGAKWSAYYEEQSKLAQTYPLAEIQ  
DAKIKRQLQALQQSGSSVLSADKSQRLNTILNAMSTIYSTGKACNPNNPQECLLLEPGLDNIMENSKDYNERL  
WAWEGWRAEVGKQLRPLYEEYVALKNEMARANNYEDYGDYWRGDYEEEWTTGGYNYSRNQLIQDVEDTFE  
QIKPLYQHLHAYVRAKLM DTPSRISRTGCLPAHLLGDMWGRFWTNLYPLTVPFQKPNIDVTDAMVNQNW  
DARRIFKEAEKFFVSVGLPNMTQGFWENSMLTEPGDGRKVVCHPTAWDLGKGDFRIKMCTKVTMDDFLTAH  
HEMGHIQYDMAYAAQPFLLRNGANEGFHEAVGEIMSLSAATPNHLKTIGLLSPAFSEDNETEINFLKQALTIV  
GTLPFTYMLEKWRWMVFKGAIPKEQWMQKWWEMKRNIVGVVEPVPHPDETYCDPASLFHVANDYSFIRYYT  
RTIYQFQFQEALCQIAKHGEPHLCDISNSTEAGKLLLEMLSLGRSEPWTALERVVGAKNMNVTPLLNYFEPL  
FTWLKEQNRNSFVGDWTDWRPYSQSIKVRISLKSALGEKAYEWNNDNEMYLFRSSAIYAMREYFSKVKNQTI  
PFVEDNVVWVSDLKPRISFNFFVTFSSNNVSDVIPRSEVEDAIRMSRSRINDAFRLDDNSLEFLGIEPTLSPPYRPP  
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## QC Testing

Biological Activity: 1. Measured by its binding ability in a functional ELISA. Immobilized SARS-CoV S-RBD at 2 µg/mL can bind Paguma larvata ACE2, the EC 50 is 5.056-7.559 ng/mL.<br>2. Recombinant Paguma larvata ACE2 protein enzyme activity is measured by its ability to cleave fluorogenic peptide substrate(Mca-Ala-Pro-Lys(Dnp)-OH), The Km is 22.84 µM.

Purity: > 90% as determined by SDS-PAGE. > 90% as determined by SEC-HPLC.

Endotoxin: < 1.0 EU/µg of the protein as determined by the LAL method.

Formulation: Lyophilized from a solution filtered through a 0.22 µm filter, containing PBS, 6% Trehalose, pH 7.4

## Preparation and Storage

## Reconstitution:

Reconstitute the lyophilized protein in sterile deionized water. The product concentration should not be less than 100 µg/mL. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

## Stability &amp; Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

### Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

### Protein Background

Essential counter-regulatory carboxypeptidase of the renin-angiotensin hormone system that is a critical regulator of blood volume, systemic vascular resistance, and thus cardiovascular homeostasis. Converts angiotensin I to angiotensin 1-9, a nine-amino acid peptide with anti-hypertrophic effects in cardiomyocytes, and angiotensin II to angiotensin 1-7, which then acts as a beneficial vasodilator and anti-proliferation agent, counterbalancing the actions of the vasoconstrictor angiotensin II. Also removes the C-terminal residue from three other vasoactive peptides, neurotensin, kinetensin, and des-Arg bradykinin, but is not active on bradykinin. Also cleaves other biological peptides, such as apelins, casomorphins and dynorphin A. Plays an important role in amino acid transport by acting as binding partner of amino acid transporter SLC6A19 in intestine, regulating trafficking, expression on the cell surface, and its catalytic activity.; (Microbial infection) Acts as a receptor for human coronavirus SARS.

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