

## ACE2 Protein, *Macaca fascicularis* (HEK293, hFc)

|                   |                                     |
|-------------------|-------------------------------------|
| Cat. No.:         | HY-P72029                           |
| Synonyms:         | ACE2; Angiotensin-converting enzyme |
| Species:          | Cynomolgus                          |
| Source:           | HEK293                              |
| Accession:        | A0A2K5X283 (Q18-T741)               |
| Gene ID:          | 102130864                           |
| Molecular Weight: | Approximately 116 kDa               |

### PROPERTIES

#### AA Sequence

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QSTIEEQAKT   FLDKFNHEAE   DLFYQSSLAS   WNYNTNITEE
NVQNMNNAGE   KWSAFLKEQS   TLAQMYP LQE   IQNLTVKLQL
QALQQNGSSV   LSEDKSKRLN   TILNTMSTIY   STGKVCNPNN
PQECLLLDPG   LNEIMEKSLD   YNERLWAWEG   WRSEV GKQLR
PLYEEYVVLK   NEMARANHYK   DYGDYWRGNY   EVNGVDGYDY
NRDQLIEDVE   RTFEEIKPLY   EHLHAYVRAK   LMNAYPSYIS
PTGCLPAHLL   GDMWGRFWTN   LYSLTVPPFGQ   KPNIDVTDAM
VNQAWNAQR I   FKEAEKFFVS   VGLPNMTQGF   WENSMLTDPG
NVQKVVCHPT   AWDLGKGD FR   IIMCTKV TMD   DFLTAHHEMG
HIQYDMAYAA   QPFLLRNGAN   EGFHEAVGEI   MSLSAATPKH
LKSIGLLSPD   FQEDNETEIN   FLLKQALTIV   GTLPFTYMLE
KWRWMVFKGE   IPKDQWMKKW   WEMKREIVGV   VEPVPHDETY
CDPASLFHVS   NDYSFIRYYT   RTLYQFQFQE   ALCQAAKHEG
PLHKCDISNS   TEAGQKLLNM   LKLGKSEPWT   LALENVVGAK
NMNVRPLLN Y   FEPLFTWLKD   QNKNSFVGWS   TDWSPYADQS
IKVRISLKSA   LGDKAYEWND   NEMYLFRSSV   AYAMRTYFLE
IKHQ TILFGE   EDVRVADLKP   RISFNFYVTA   PKNVSDIIPR
TEVEEAIRIS   RSRINDA FRL   NDNSLEFLGI   QTTLAPPYQS
PVT T
  
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|----------------------------|--|
| <b>Biological Activity</b> | Measured by its binding ability in a functional ELISA. Immobilized SARS-CoV-2-S1-RBD at 0.2 µg/well can bind Cynomolgus-ACE2, the EC <sub>50</sub> is 2.380-10.94 ng/mL. |
| <b>Appearance</b>          | Lyophilized powder.  |
| <b>Formulation</b>         | Lyophilized from a 0.2 µm sterile filtered PBS, 6% Trehalose, pH 7.4   |
| <b>Endotoxin Level</b>     | <1 EU/µg, determined by LAL method.  |
| <b>Reconstitution</b>      | It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> 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**

Angiotensin-converting enzyme 2 (ACE2), a metallopeptidase, is the functional receptor for SARS-CoV. ACE2 can be immunoprecipitated by the S1 domain of the SARS-CoV virus and that ACE2 can promote viral replication. ACE2 is abundantly present in humans in the epithelia of lung and small intestine, which might provide possible routes of entry for the SARS-CoV. ACE2, previously identified as the cellular receptor for SARS-CoV, also acts as a receptor of the new coronavirus (SARS-CoV-2). ACE2 is also thought to be an essential regulator of cardiac function and blood pressure control, possibly by acting as a natural counterpart of ACE1<sup>[1][2]</sup>.

**REFERENCES**

[1]. Hamming I, et, al. Tissue distribution of ACE2 protein, the functional receptor for SARS coronavirus. A first step in understanding SARS pathogenesis. J Pathol. 2004 Jun;203(2):631-7.

[2]. Yang J, et, al. Molecular interaction and inhibition of SARS-CoV-2 binding to the ACE2 receptor. Nat Commun. 2020 Sep 11;11(1):4541.

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

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