

ARG70351 Human ACE2 recombinant protein (ECD) (His-tagged, C-ter)

Package: 100 µg
Store at: -20°C

Summary

Product Description	HEK293 expressed, His-tagged (C-ter) Human ACE2 recombinant protein (ECD).
Tested Reactivity	Hu
Tested Application	Binding, SDS-PAGE
Target Name	ACE2 (ECD)
Species	Human
A.A. Sequence	Gln18 - Ser740 of Human ACE2 (Q9BYF1) with 6X His tag at the C-terminus.
Expression System	HEK293
Alternate Names	Angiotensin-converting enzyme homolog; ACEH; Angiotensin-converting enzyme 2; Metalloprotease MPROT15; ACE-related carboxypeptidase; EC 3.4.17.23

Application Instructions

Application Note	Binding activity test: Measured by its binding ability in a functional ELISA. Immobilized Recombinant Human ACE2 at 2µg/ml (100 µl/well) can bind Recombinant SARS-COV-2 Spike S1 with a linear range of 0.49-27.83 ng/ml.
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Properties

Form	Powder
Purification Note	0.22 µm filter sterilized. Endotoxin level is less than 0.1 EU/µg of the protein, as determined by the LAL test.
Purity	> 90% (by SDS-PAGE)
Buffer	PBS (pH 7.4)
Reconstitution	Reconstitute to a concentration of 0.1 - 0.5 mg/ml in sterile distilled water.
Storage instruction	Lyophilized protein should be stored at -20°C or -80°C. After reconstitution, aliquot and store at -20°C for up to one month, at 2-8°C for up to one week. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	ACE2
Gene Full Name	angiotensin I converting enzyme 2
Background	The protein encoded by this gene belongs to the angiotensin-converting enzyme family of dipeptidyl carboxydipeptidases and has considerable homology to human angiotensin 1 converting enzyme. This secreted protein catalyzes the cleavage of angiotensin I into angiotensin 1-9, and angiotensin II into the vasodilator angiotensin 1-7. The organ- and cell-specific expression of this gene suggests that it may play a role in the regulation of cardiovascular and renal function, as well as fertility. In addition, the

encoded protein is a functional receptor for the spike glycoprotein of the human coronaviruses SARS and HCoV-NL63. [provided by RefSeq, Jul 2008]

Function

Carboxypeptidase which converts angiotensin I to angiotensin 1-9, a peptide of unknown function, and angiotensin II to angiotensin 1-7, a vasodilator (PubMed:10969042, PubMed:10924499, PubMed:11815627). Also able to hydrolyze apelin-13 and dynorphin-13 with high efficiency (PubMed:11815627). By cleavage of angiotensin II, may be an important regulator of heart function (PubMed:10969042, PubMed:10924499). By cleavage of angiotensin II, may also have a protective role in acute lung injury (By similarity). Plays an important role in amino acid transport by acting as binding partner of amino acid transporter SL6A19 in intestine, regulating trafficking, expression on the cell surface, and its catalytic activity (PubMed:18424768, PubMed:19185582).

(Microbial infection) Acts as a receptor for SARS coronavirus/SARS-CoV.

(Microbial infection) Acts as a receptor for Human coronavirus NL63/HCoV-NL63. [UniProt]

Calculated Mw

92 kDa

PTM

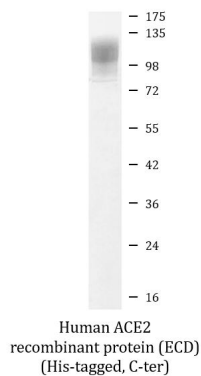
N-glycosylation on Asn-90 may limit SARS infectivity.

Proteolytic cleavage by ADAM17 generates a secreted form. Also cleaved by serine proteases: TMPRSS2, TMPRSS11D and HPN/TMPRSS1. [UniProt]

Cellular Localization

Processed angiotensin-converting enzyme 2: Secreted. Cell membrane; Single-pass type I membrane protein. Cytoplasm. Note=Detected in both cell membrane and cytoplasm in neurons. [UniProt]

Images



ARG70351 Human ACE2 recombinant protein (ECD) (His-tagged, C-ter) SDS-PAGE image

SDS-PAGE analysis of ARG70351 Human ACE2 recombinant protein (ECD) (His-tagged, C-ter).