

Active Recombinant Human ACE2 Protein, FLAG-tagged, Biotinylated

Cat. No. ACE2-10H **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Biotinylated recombinant human Angiotensin-converting enzyme 2 (ACE2) expressed in HEK293 cells. Extracellular domain of human ACE2 (aa 18-740) are fused at the C-terminus to a FLAG®-tag.

Species

Human

Source

HEK293

ProteinLength

18-740

Description

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. ACE2 is known to be expressed in various human organs, and its organ- and cell-specific expression 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 coronavirus HCoV-NL63 and the human severe acute respiratory syndrome coronaviruses, SARS-CoV and SARS-CoV-2, the latter is the causative agent of coronavirus disease-2019 (COVID-19). Multiple splice variants have been found for this gene and the dACE2 (or MIRb-ACE2) splice variant has been found to be interferon inducible.

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Bio-activity	ACE2 Human, HEK293 Recombinant binds with high affinity to the Spike S1RBD protein of the virus SARS-CoV-2. ACE2 Human, HEK293 Recombinant was coated on an ELISA plate at 1µg/ml overnight at 4 centigrade. Recombinant SARS-CoV-2 Spike Protein S1RBD was added (starting at a concentration of 500 ng/mL with a two-fold serial dilution) during one hour at RT and the interaction was then detected using an anti-human IgG (HRP).
Molecular Mass	~110kDa (SDS-PAGE) ~240kDa (Dimer, by SEC)
Endotoxin	<0.01 EU/µg (LAL test).
Purity	≥ 95%
Applications	Cell culture and/or animal studies, In vitro, COVID-19
Storage	Stable for at least 6 months after receipt when stored at -20 centigrade. After opening, prepare aliquots and store at -20 centigrade. Working aliquots are stable for up to 3 months when stored at -20 centigrade. Avoid freeze/thaw cycles. For maximum product recovery after thawing, centrifuge the vial before opening the cap.
Storage Buffer	1 mg/mL after reconstitution. Lyophilized. Contains PBS.
Reconstitution	Reconstitute with 50 µL endotoxin-free water.
Shipping	Shipped on ice packs.
Conjugation	Biotin

GENE INFORMATION

Gene Name	ACE2 angiotensin converting enzyme 2 [Homo sapiens (human)]
Official Symbol	ACE2
Synonyms	ACE2; angiotensin converting enzyme 2; ACEH; angiotensin-converting enzyme 2; ACE-related carboxypeptidase; angiotensin I converting enzyme (peptidyl-dipeptidase A) 2; angiotensin I converting enzyme 2; angiotensin-converting enzyme homolog; angiotensin-converting enzyme-related carboxypeptidase; metalloprotease MPROT15; peptidyl-dipeptidase A; EC 3.4.17.23
Gene ID	59272
mRNA Refseq	NM_021804
Protein Refseq	NP_068576
MIM	300335
UniProt ID	Q9BYF1

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