

32-6634: ACE2 (18-740) Human, Biotin

Application : Functional Assay

Alternative Name :

ACE-2 (Angiotensin converting enzyme 2) an enzyme bound to cell membranes in various organs such as intestines arteries , lungs, heart & kidney. ACE2 an entry receptor of SARS coronaviruses as well as SARS-CoV-2. The coronavirus spike (S) glycoprotein is a class I viral fusion antigen located on the external envelope of the virion that takes part in a critical part in viral infection by identifying host cell receptors and facilitating fusion of the viral and cellular membranes. 2 main domains in coronavirus S1 have been recognized, the N-terminal domain and C-terminal domain. One or the other and/or both S1 domains function as a receptor-binding domain. SARS-CoV + MERS-CoV equally use C-domain to attach their receptors. ACE2 is a type I transmembrane antigen with an extracellular N-terminal domain having the catalytic site and an intracellular C-terminal tail. ACE2 obtains a signal peptide, a transmembrane domain, and a single metalloproteinase active site containing an HEXXH zinc-binding domain. ACE-2 plays a role as a mono-carboxypeptidase which degrades Ang I to produce the nonapeptide Ang 1–9 and Ang II to create the heptapeptide Ang 1–7.

Description

Source: HEK293 Cells

Sterile Filtered clear solution.

ACE-2 (Angiotensin converting enzyme 2) an enzyme bound to cell membranes in various organs such as intestines arteries , lungs, heart & kidney. ACE2 an entry receptor of SARS coronaviruses as well as SARS-CoV-2. The coronavirus spike (S) glycoprotein is a class I viral fusion antigen located on the external envelope of the virion that takes part in a critical part in viral infection by identifying host cell receptors and facilitating fusion of the viral and cellular membranes. 2 main domains in coronavirus S1 have been recognized, the N-terminal domain and C-terminal domain. One or the other and/or both S1 domains function as a receptor-binding domain. SARS-CoV + MERS-CoV equally use C-domain to attach their receptors. ACE2 is a type I transmembrane antigen with an extracellular N-terminal domain having the catalytic site and an intracellular C-terminal tail. ACE2 obtains a signal peptide, a transmembrane domain, and a single metalloproteinase active site containing an HEXXH zinc-binding domain. ACE-2 plays a role as a mono-carboxypeptidase which degrades Ang I to produce the nonapeptide Ang 1–9 and Ang II to create the heptapeptide Ang 1–7.

The HEK293 derived ACE2 Human recombinant biotinylated protein contains the amino acids Gln 18-Ser 740 fused to His-AVI tag at C-terminal having a predicted Mw of 87.2 kDa (migrates 95-125 kDa under reducing conditions on sds-page due to glycosylation). ACE2 Protein binds to SARS Coronavirus-2 [CoV-2019] Spike receptor binding domain.

Product Info

Amount :	1 µg / 5 µg
Purification :	ACE-2 Protein is >90% pure as determined SDS-PAGE.
Content :	ACE2 Human protein solution is supplied in 50mM Tris, pH7.5, 150mM NaCl and 20% glycerol.
Storage condition :	ACE-2 Human Recombinant Protein is shipped on ice packs. Upon arrival, Store at -20°C. The addition of 0.1% albm is highly recommended for long term storage use.

Application Note

ACE2 activity was measured by its binding ability in a functional ELISA. The immobilized Recombinant Human ACE2 protein binds to SARS CoV2 Spike protein's Receptor Binding Domain at 2ug per ml.