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32-190009: Human ACE2 Protein (Fc Tag)

Uniprot ID : Q9BYF1

Alternative Name : SARS Receptor; Angiotensin-converting Enzyme 2; ACEH; Metalloprotease MPROT15; SARS-CoV-2 Receptor

Description

Source: HEK 293 cells. Angiotensin-converting enzyme 2 (ACE2) is an ectoenzyme (carboxypeptidase) with an extracellular catalytic domain that predominantly localizes at the plasma membrane and is thereby able to hydrolyze circulating peptides. ACE2 has approximately 42% sequence identity with ACE, and its cytoplasmic and transmembrane domains show 48% homology to the protein collectrin that plays a critical role in the amino acid absorption of the kidney. ACE2 converts angiotensin I to angiotensin 1-9, a peptide of unknown function, and angiotensin II to angiotensin 1-7, a vasodilator. ACE2 is involved in the regulation of systemic blood pressure and has direct effects on cardiac functions. It is expressed predominantly in endothelial cells of the lung, gut, heart and kidney. ACE2 together with the protease TMPRSS2 acts as a functional receptor for SARS coronavirus as well as for the new highly pathogenic coronavirus, 2019-nCoV/SARS-CoV-2, which is cause for pneumonia COVID-19. It has been shown that human recombinant soluble ACE2 can significantly block early stages of SARS-CoV-2 infections.

Product Info

Amount : 100 µg

Purification : â‰¥90% (SDS-PAGE)

Content : 1mg/ml after reconstitution (Lyophilized. Contains PBS.). Reconstitute with 100µl endotoxin-free water.

Storage condition : After opening, prepare aliquots and store at -20°C. Avoid freeze/thaw cycles. For maximum product recovery after thawing, centrifuge the vial before opening the cap. Stable for at least 6 months after receipt when stored at -20°C. Working aliquots are stable for up to 3 months when stored at -20°C.

Amino Acid : Extracellular domain of human ACE2 (aa 1-740) is fused to the N-terminus of the Fc region of human IgG1.

Application Note

Biological Activity: Binds to the Spike protein of the coronavirus SARS-CoV-2. <0.001EU/µg purified protein (LAL test).

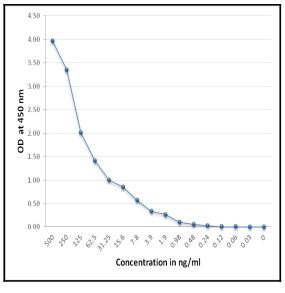


Figure 1: ACE2 (human)(rec.) binds with high affinity to the biotinylated Spike (RBD) protein (Cat.No:21-1005B) of the virus SARS-CoV-2.

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