

Angiotensin-converting enzyme 2 (ACE2)

Homo sapiens, extracellular domain (ECD)

Cat. no. P2020-024

Product Information

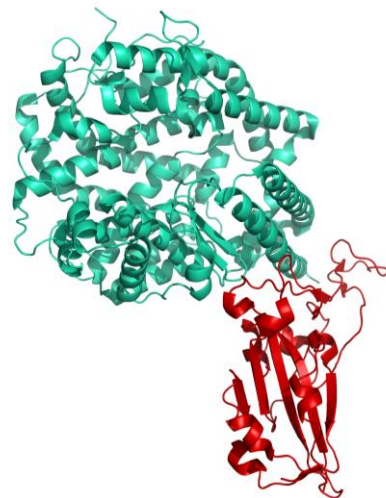
Protein:	hACE2(ECD, processed), tag-free (~ 80.0 kDa)
Sequence:	<pre>MTIEEQAKTFLDKFNHEAEDLFYQSSLASWNYNTNITEENVQNMNAGDKWSAFLKEQST LAQMYPLQEIQNLTVKLQALQONGSSVLSSEDKSKRLNLTNTMSTIYSTGKVCNPDNP QECLLLEPGLNEIMANSLDYNERLWAWESWRSEVKGQLRPLYEEYVVLKNEMARANHED YGDYWRGDYEVNGVDGYDYSRGLIEDVEHTFEEIKPLYEHLHAYVRAKLMNAYPSYISP IGCLPAHLLGDMWGRFWTNLYSLVFPFGQKPNIDVTAMVDQAWDAQRIFKEAEKFFVSV GLPNMTQGFWENSMLTDPGNVQKAVCHPTAWDLGKGFRLMCTKVTMDDFLTAHHMGMH IQYDMAYAAQPFLLRNGANEGFHEAVGEIMSLSAATPKHLKSIGLLSPDFQEDNETEINF LLKQALTIVGTLPFYTMLEKWRWMVFKEIPKDQWMKKWEMKREIVGVVPEVPHDETYC DPASLFHVSNDYSFIRYYTRTYQFQFQALCQAAKHEGPLHKCDISNSTEAGQKLFNML RLGKSEPWTALENNVGAKNMNVRPLLNYFEPLFTWLKDQNKNSFVGWSTDWSPYADQSI KVRISLKSALGDKAYEWNDEMFLFRSSVAYAMROYFLKVKNQMILFGEDVVRVANLKPR ISFNFFVTAPKNVSDIIPRTEVEKAIRMSR</pre>
	Methionine at pos. 1 present due to cloning constraints.
Source:	Recombinantly expressed in HEK293 cells.
Tag(s):	tag-free
Purification:	Purified by ion exchange chromatography.
Formulation:	PBS; pH 7.4 Lyophilized, stored at -20 °C and shipped at ambient temperature. We recommend to reconstitute the sample in H ₂ O (WFI) to the initial concentration.
Purity:	> 80 % (will be determined by densitometry of Coomassie stained gel)
Concentration:	Will be determined by BCA-Assay.
Long-term storage:	No recommendations.
Comment:	Protein migrates at higher molecular weight during SDS-PAGE due to posttranslational modifications. If maximum activity is needed, we recommend to order our protein as liquid formulation (P2020-016).

Background Information:

The human Angiotensin-Converting Enzyme 2 (hACE2) is a type I transmembrane metalloprotease with homology to ACE, an regulator in the Renin-Angiotensin system (RAS) and long-known as a target for the treatment of hypertension.

hACE2 is expressed at the surface of cells of the human lungs, arteries, kidneys, heart and intestine – all tissues shown to harbor SARS-CoV. The function of ACE-2 is known as controlling blood pressure. This is accomplished by the hydrolysis of a small peptide hormone called Angiotensin II into angiotensin 1-7 by ACE and other endopeptidases. Angiotensin 1-7 acts in a vasoconstricting manner and is therefore involved in diabetes, hypertension and cardiac function in general.

Recently it became known, that the new Coronavirus SARS-CoV-2 uses ACE2 as the entry point into alveolar cells of the lungs, where it replicates and causes the Coronavirus disease (COVID-19).



Structural model of the human ACE2 protein (amino acids 1-597, green) bound to the SARS-CoV-2 Spike S1 RBD domain (red).