

# Angiotensin-converting enzyme 2 (ACE2)

*Homo sapiens*, extracellular domain (ECD)

Cat. no. P2020-017

## Product Information

Protein:	Biotinylated hACE2(ECD), Avi/His-Tag (~ 80.0 kDa)
Sequence:	<p>MTIEEQAKTFLDKFNHEAEDLFYQSSLASWNYNTNITEENVQNMNAGDKWSAFLKEQST LAQMYPLQEIQNLTVKLQLQALQQNGSSVLSSEDKSKRLNLTNTMSTIYSTGKVCNPDP QECLLLPLEGLNEIMANSLDYNERLWAWESWRSEVGKQLRPLYEEYVVLKNEMARANHYED YGDYWRGDYEVNGVDGYDYSRGLIEDVEHTFEEIKPLYEHLHAYVRAKLMNAYPSYISP IGCLPAHLLGDMWGRFWTNLYSLTVPFGQKPNIDVTDAMVDQAWDAQRFKEAEKFFVSV GLPNMTQGFWENSMLTDPGNVQKAVCHPTAWDLGKGDFRILMCTKVTMDDFLTAHHMGMH IQYDMAYAAQPFLLRNGANEGFHEAVGEIMSLSAATPKHLKSIGLLSPDFQEDNETEIF LLKQALTIVGTLPFTYMLEKWRWMVFKGEIPKDQWMKKWWEMKREIVGVVEPVPHDETYC DPASLFHVSNDYSFIRYYTRTLYQFQFQEAALCQAAKHEGPLHKCDISNSTEAGQKLFNML RLGKSEPWTLALENVVGAKNMNRPLLNYPFLFTWLKDNKNSFVGVSTWSPYADQSI KVRISLKSALGDKAYEWNDEMNYLFRSSVAYAMRQYFLKVKNQMILFGEDVRVANLKPR ISFNFFVTAPKNVSDIIPRTEVEKAIRMSSGGLNDIFEAQKIEWHEGSGHHHHHHHHHG</p> <p>Methionine at pos. 1 present due to cloning constraints.</p>
Source:	Recombinantly expressed in HEK293 cells, coexpressed with birA.
Tag(s):	Avi/His-Tag, C-terminal.
Purification:	Purified by affinity chromatography and subsequent buffer exchange.
Formulation:	PBS; pH 7.4 Liquid, stored and shipped at -80 °C.
Purity:	> 80 % (will be determined by densitometry of Coomassie stained gel, example next page)
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.

## 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).*

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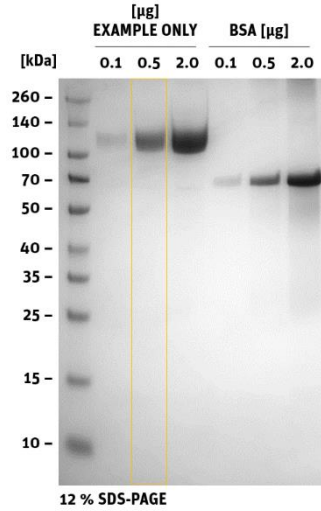
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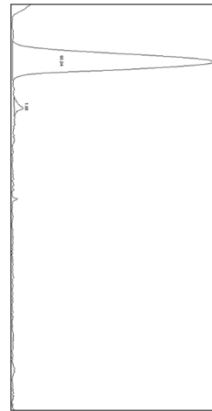
## Product Information

Quality Information (provided for each lot):

Biotinylated hACE2 (ECD), Avi/His-tag



SDS-PAGE/Coll.Coomassie



	Area	Percent
1	16762.518	98.044
2	334.335	1.956

Histogram (of marked lane in gel picture)