

PRODUCT INFORMATION

Angiotensin-converting enzyme 2 (ACE2)_HEK

Description:

InVivo offers a recombinant form of Angiotensin-converting enzyme 2 (ACE2), which is produced under serum-free conditions in HEK-INV cells (InVivo proprietary optimized; human embryonic kidney, HEK293 cells). ACE2 is the cellular receptor for severe acute respiratory syndrome-coronavirus (SARS-CoV-2). The receptor-binding domain (RBD) of the SARS-CoV-2 Spike (S) protein interacts with the peptidase domain (PD, residues 19–615) of ACE2. The collectrin-like domain (CLD, residues 616–726) mediates the homo-dimerization of the receptor.

The construct contains residues 1–740 of ACE2, comprising the native signal peptide and the entire extracellular domain (including PD and CLD domains). The mature protein is predicted to start with Gln18. The protein includes a C-terminal hexa-histidine-tag and is purified using immobilized metal exchange chromatography (IMAC).

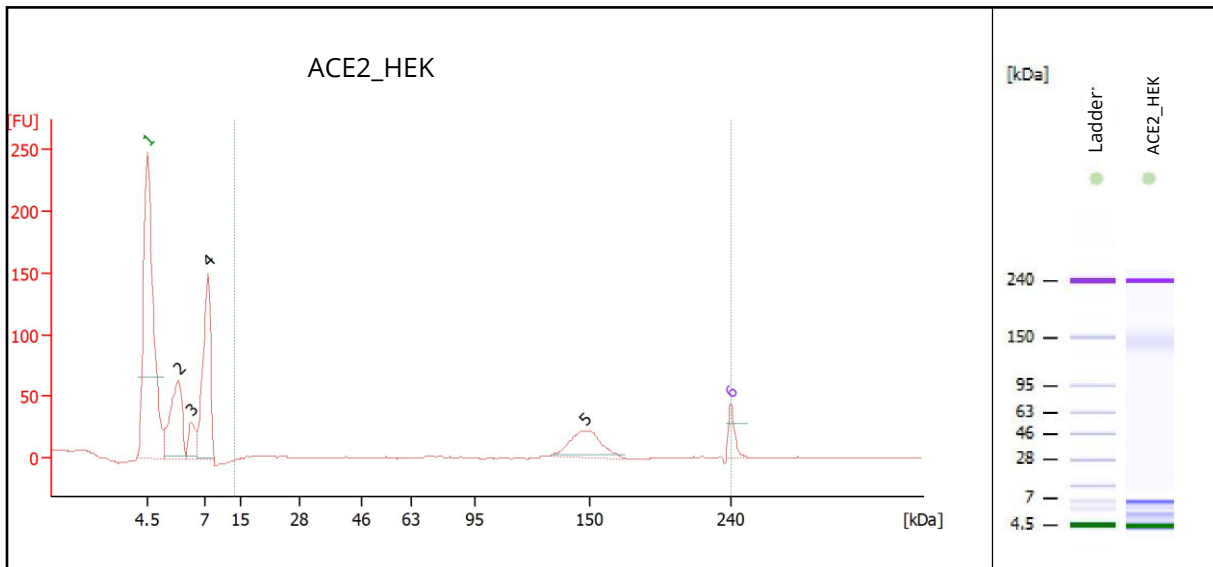
Product-ID:	ACE2_HEK
Expression System:	Mammalian; HEK
Protein Accession Number:	UniProt: Q9BYF1
Amino Acids:	Met1–Ser740 (including signal peptide)
Mature Protein N-Term:	Gln18 (predicted)
Tag:	6 x His-Tag; C-terminal
Expected Molecular Weight:	Monomeric form 84.4 kDa (dimerization may occur)
Formulation:	Liquid ; 20 mM NaPP, 300 mM NaCl pH 7.2
Concentration:	≥ 0.5 mg/ mL
Purity:	≥ 90% (via analytical CGE under reducing conditions)
Specific Activity:	≥ 1 μmol/min/mg enzyme ¹

The product is for research use or for further manufacturing only.

¹ 1 mg of enzyme is able to cleave 1 μmol of the fluorogenic peptide substrate Mca-YVADAPK(Dnp)-OH in one minute at 37°C in a reaction buffer containing 1 M NaCl and 10 μM ZnCl₂ at pH 7.5

Purity (analytical CGE, under reducing conditions):

Please note: Glycosylated form of ACE2_HEK runs at ~150 kDa in gel electrophoresis



Peak	Size [kDa]	% of Total	Peak Identification
1	4.5	0.0	Lower Marker
2	5.8	0.0	System Peak
3	6.4	0.0	System Peak
4	7.9	0.0	System Peak
5	147.4	≥ 90%	ACE2_HEK
6	240.0	0.0	Upper Marker