

## Recombinant ACE2 (18-740) protein

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**Catalog No:** 81351, 81751

**Expressed In:** Baculovirus

**Quantity:** 20, 1000 µg

**Concentration:** 0.25 µg/µl

**Source:** Human

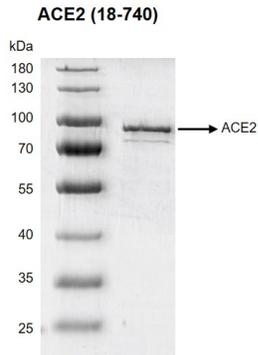
**Buffer Contents:** Recombinant ACE2 (18-740) protein is supplied in 25 mM HEPES-NaOH pH 7.5, 300 mM NaCl, 10% glycerol, 0.04% Triton X-100, and 0.5 mM TCEP.

**Background:** ACE2 (Angiotensin I Converting Enzyme 2) belongs to the angiotensin-converting enzyme family of dipeptidyl carboxydipeptidases, it is a critical regulator of blood volume, systemic vascular resistance, and thus cardiovascular homeostasis. This protein catalyzes the cleavage of angiotensin I to angiotensin 1-9, a nine-amino acid peptide with anti-hypertrophic effects in cardiomyocytes, and angiotensin II to the vasodilator angiotensin 1-7, which acts as a beneficial vasodilator and anti-proliferation agent, counterbalancing the actions of the vasoconstrictor angiotensin II. ACE2 removes the C-terminal residue from three other vasoactive peptides, neurotensin, kinetensin, and des-Arg bradykinin, but is not active on bradykinin. Also cleaves other biological peptides, such as apelins (apelin-13, [Pyr1] apelin-13, apelin-17, apelin-36), casomorphins (beta-casomorphin-7, neocasomorphin) and dynorphin A with high efficiency. In addition, ACE2 C-terminus is homologous to collectrin and is responsible for the trafficking of the neutral amino acid transporter SL6A19 to the plasma membrane of gut epithelial cells via direct interaction, regulating its expression on the cell surface and its catalytic activity.

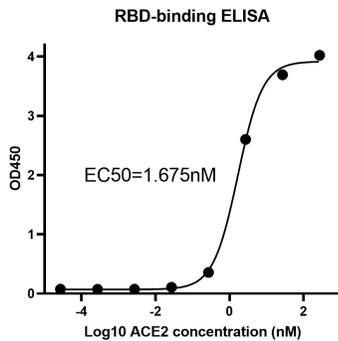
**Protein Details:** Recombinant ACE2 (18-740) protein that includes amino acids 18-740 of human ACE2 protein (accession number NP\_001358344.1) was expressed in a baculovirus expression system, and contains a C-terminal FLAG tag. The molecular weight of the protein is 85.4 kDa.

**Application Notes:** This product was manufactured as described in Protein Details. Where possible, Active Motif has developed functional or activity assays for recombinant proteins. Additional characterization such as enzyme kinetic activity assays, inhibitor screening or other biological activity assays may not have been performed for every product. All available data this product is shown.

**Storage and Guarantee:** Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. This product is for research use only and is not for use in diagnostic procedures. This product is guaranteed for 6 months from date of arrival.



**Recombinant ACE2 (18-740) protein gel**  
 10% SDS-PAGE with Coomassie staining  
 MW: 85.4 kDa  
 Purity: >80%



**ELISA assay for ACE2 (18-740) activity**

SARS-CoV-2 Spike RBD protein was coated onto microtiter plates at 0.5 µg/mL and then incubated with a dilution series of ACE2 (18-740) Antibody. Bound antibodies were detected with anti-human IgG conjugated to horseradish peroxidase (HRP), followed by incubation with HRP Substrate and then measuring the resulting absorbance at 450 nm.