

Datasheet for ABIN7321233

ACE2 Protein (His tag)**1** Image[Go to Product page](#)

Overview

Quantity:	100 µg
Target:	ACE2
Origin:	Rat
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This ACE2 protein is labelled with His tag.

Product Details

Purpose:	Recombinant Rat ACE2 Protein (His Tag)(Active)
Sequence:	Met 1-Thr 740
Characteristics:	A DNA sequence encoding the rat ACE2 (Q5EGZ1) extracellular domain (Met 1-Thr 740) was fused with a polyhistidine tag at the C-terminus.
Purity:	> 97 % as determined by SDS-PAGE
Endotoxin Level:	< 1.0 EU per µg of the protein as determined by the LAL method
Biological Activity Comment:	Measured by its ability to cleave a fluorogenic peptide substrate, Mca-YVADAPK(Dnp)-OH, (R&D Systems, Catalog # ES007). The specific activity is >300 pmol/min/µg.

Target Details

Target:	ACE2
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Target Details

Alternative Name: ACE2 ([ACE2 Products](#))

Background: Angiotensin-converting enzyme 2 (ACE2), a first homolog of ACE, regulates the renin angiotensin system (RAS) by counterbalancing ACE activity. Accumulating evidence in recent years has demonstrated a physiological and pathological role of ACE2 in the cardiovascular, renal and respiratory systems. ACE2 also has an important role in blood pressure control. This enzyme, an homolog of ACE, hydrolyzes angiotensin (Ang) I to produce Ang-(1-9), which is subsequently converted into Ang-(1-7) by a neutral endopeptidase and ACE. ACE2 releases Ang-(1-7) more efficiently than its catalysis of Ang-(1-9) by cleavage of Pro(7)-Phe(8) bound in Ang II. Thus, the major biologically active product of ACE2 is Ang-(1-7), which is considered to be a beneficial peptide of the RAS cascade in the cardiovascular system. A physiological role for ACE2 has been implicated in hypertension, cardiac function, heart function and diabetes, and as a receptor of the severe acute respiratory syndrome coronavirus. In the acute respiratory distress syndrome (ARDS), ACE, AngII, and AT1R promote the disease pathogenesis, whereas ACE2 and the AT2R protect from ARDS. Importantly, ACE2 has been identified as a key SARS-coronavirus receptor and plays a protective role in severe acute respiratory syndrome (SARS) pathogenesis. Furthermore, the recent explosion of research into the ACE2 homolog, collectrin, has revealed a new physiological function of ACE2 as an amino acid transporter, which explains the pathogenic role of gene mutations in Hartnup disorder. This review summarizes and discusses the recently unveiled roles for ACE2 in disease pathogenesis.

Synonym: ACE2

Molecular Weight: 85 kDa

UniProt: [Q5EGZ1](#)

Pathways: [ACE Inhibitor Pathway](#), [Peptide Hormone Metabolism](#), [Regulation of Systemic Arterial Blood Pressure by Hormones](#), [Feeding Behaviour](#)

Application Details

Restrictions: For Research Use only

Handling

Format: Lyophilized

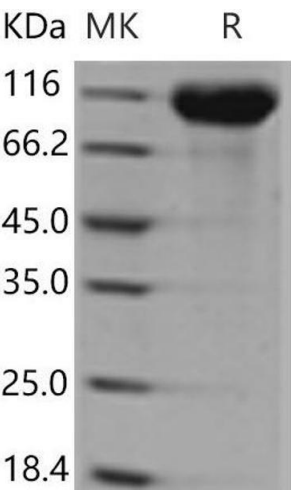
Reconstitution: Please refer to the printed manual for detailed information.

Buffer: Lyophilized from sterile PBS, pH 7.4

Handling

Storage:	4 °C,-20 °C,-80 °C
Storage Comment:	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

Images



Western Blotting

Image 1.