

Human CellExp™ ACE1, Human Recombinant

12/20

CATALOG NO:	P1660-10 10 µg P1660-50 50 µg
ALTERNATE NAMES:	Angiotensin-Converting Enzyme, ACE1, ACE, CD antigen CD143, DCP1, DCP, Dipeptidyl carboxypeptidase I, Kininase II, Peptidyl-dipeptidase A, Peptidyl-dipeptide Hydrolase, EC 3.4.15.1, UniProtKB - P12821
MOL. WT.	170 kDa (His-tag at the C-terminus)
SOURCE:	HEK 293 Cells
PURITY:	≥ 95% SDS-PAGE
FORM:	Liquid
FORMULATION:	In 0.22 µm filtered 20 mM Tris-HCl, 500 mM NaCl, 1 mM ZnCl ₂ , 30% Glycerol, pH 8.5
SPECIFIC ACTIVITY:	The specific activity is > 200 U/mg, assayed using BioVision's Angiotensin I Converting Enzyme Activity (ACE1) Assay Kit (Fluorometric) (BV Cat # K227-100).
UNIT DEFINITION:	One unit of ACE1 activity is the amount of enzyme that catalyzes the release of 1 nmol of Abz per min from the substrate under the assay conditions at 37 °C using K227-100.
STORAGE CONDITIONS:	Briefly centrifuge the vial before opening. For long term storage, divide into aliquots and store at -20 °C.
DESCRIPTION:	The angiotensin 1 converting enzyme (ACE1) is a zinc metalloproteinase. It functions as a central component of the well acknowledged renin–angiotensin system (RAS), where ACE plays an important physiological role in regulation of blood pressure via the conversion of angiotensin I to angiotensin II. Inhibition of ACE has been a targeted therapeutic strategy for treating hypertension. ACE can be specifically inhibited by peptide like lisinopril, captopril and enalaprilat. ACE is also crucial for fertilization for releasing the proteins anchored to glycosylphosphatidylinositol (GPI) in sperm membrane. Germinal angiotensin-converting enzyme (gACE) was shown to be undetectable in sperm from patients with fertilization failure. ACE1 and its homologue, ACE2, have been mostly associated with hypertension disorders. SARS-CoV-2 virus has been shown to exploit ACE2 protein to enter cells. The differences in the course of SARS-CoV-2 infection have been attributed to difference in expression levels and function of ACE proteins.
AMINO ACID SEQUENCE:	Amino acids (30- 1232)

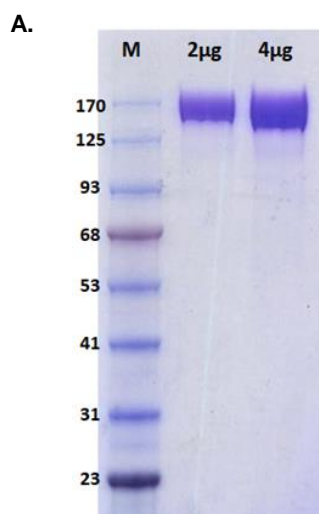


Fig. A. SDS-PAGE (4-20%) of Recombinant ACE1 protein: Recombinant ACE1 protein was loaded under reducing conditions and stained with Coomassie Blue.

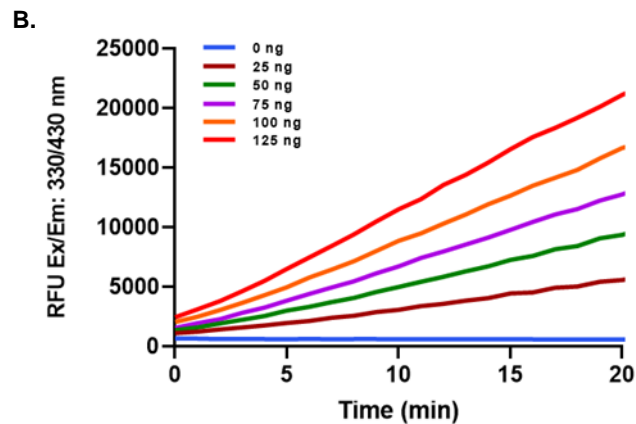


Fig. B. Biological Activity: The specific activity is > 200 U/mg, assayed using BioVision's Angiotensin I Converting Enzyme Activity (ACE1) Assay Kit (Fluorometric) (BV Cat # K227-100). One unit of ACE1 activity is the amount of enzyme that catalyzes the release of 1 nmol of Abz per min from the substrate under the assay conditions at 37 °C using K227-100 assay kit.

RELATED PRODUCTS:

- Angiotensin I Converting Enzyme Activity (ACE1) Assay Kit (Fluorometric) Catalog #: K227
- ACE1 Colorimetric Activity Assay Kit Catalog #: K2001
- ACE1 Inhibitor Screening Kit (Colorimetric) Catalog #: K719
- Angiotensin I Converting Enzyme (ACE1) Inhibitor Screening Kit Catalog #: K228
- SARS-CoV-2 S1 Protein-ACE2 Binding Inhibitor Screening Kit Catalog #: K2050
- ACE2 (Human) ELISA Kit (E4528)
- Anti-ACE2 Antibody Catalog #: A2072
- Angiotensin II Converting Enzyme (ACE2) Activity Assay Kit (Fluorometric) (K897)
- Angiotensin III (Ang III)(Human) ELISA Kit (E4536)
- Angiotensin II Converting Enzyme (ACE2) Inhibitor Screening Kit (K310)
- ACE Antibody (6703)

FOR RESEARCH USE ONLY! Not to be used on humans.