

ACE2 (H-175): sc-20998

BACKGROUND

Angiotensin-converting enzyme (ACE) is a carboxyl-terminal dipeptidyl exopeptidase that converts Angiotensin I to the potent vasopressor hormone, Angiotensin II. There are two isoforms of ACE, the pulmonary ACEP and the testicular ACET. ACEP is a glycoprotein expressed in vascular endothelial cells of the lung, liver, adrenal cortex, pancreas, kidney and spleen. The ACET isoform is expressed exclusively in adult testis by developing sperm cells, specifically late pachytene spermatocytes. Additionally, ACE inactivates bradykinin, a vasodepressor peptide, and is involved in blood pressure regulation and fluid/electrolyte homeostasis. ACE2 is the first known human homolog of angiotensin-converting enzyme (ACE). Unlike ACE, which is expressed ubiquitously throughout the vasculature, ACE2 is expressed only in cardiac, renal and testicular cells.

CHROMOSOMAL LOCATION

Genetic locus: ACE2 (human) mapping to Xp22.2; Ace2 (mouse) mapping to X F5.

SOURCE

ACE2 (H-175) is a rabbit polyclonal antibody raised against amino acids 631-805 of ACE2 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Available as agarose conjugate for immunoprecipitation, sc-20998 AC, 500 µg/0.25 ml agarose in 1 ml.

APPLICATIONS

ACE2 (H-175) is recommended for detection of ACE2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for ACE2 siRNA (h): sc-41400, ACE2 siRNA (m): sc-41401, ACE2 shRNA Plasmid (h): sc-41400-SH, ACE2 shRNA Plasmid (m): sc-41401-SH, ACE2 shRNA (h) Lentiviral Particles: sc-41400-V and ACE2 shRNA (m) Lentiviral Particles: sc-41401-V.

Molecular Weight of ACE2: 90 kDa.

Positive Controls: ACE2 (m): 293T Lysate: sc-118196, mouse kidney extract: sc-2255 or Hs 181 Tes whole cell lysate: sc-364779.

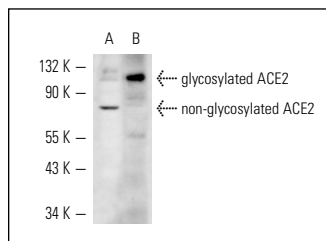
STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

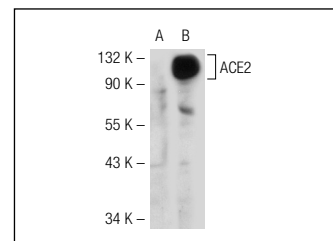
RESEARCH USE

For research use only, not for use in diagnostic procedures.

DATA



ACE2 (H-175): sc-20998. Western blot analysis of ACE2 expression in Hs 181.Tes whole cell lysate (A) and mouse kidney tissue extract (B).



ACE2 (H-175): sc-20998. Western blot analysis of ACE2 expression in non-transfected: sc-117752 (A) and mouse ACE2 transfected: sc-118196 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

- Ling, T.Y., et al. 2006. Identification of pulmonary Oct-4⁺ stem/progenitor cells and demonstration of their susceptibility to SARS coronavirus (SARS-CoV) infection *in vitro*. *Proc. Natl. Acad. Sci. USA* 103: 9530-9535.
- Yamamoto, K., et al. 2006. Deletion of Angiotensin-converting enzyme 2 accelerates pressure overload-induced cardiac dysfunction by increasing local Angiotensin II. *Hypertension* 47: 718-726.
- Alfany-Fernandez, I., et al. 2009. Therapeutic targets in liver transplantation: angiotensin II in nonsteatotic grafts and angiotensin-(1-7) in steatotic grafts. *Am. J. Transplant.* 9: 439-451.
- Fraga-Silva, R.A., et al. 2010. ACE2 activation promotes antithrombotic activity. *Mol. Med.* 16: 210-215.
- Ferreira, A.J., et al. 2011. Angiotensin-converting enzyme 2 activation protects against hypertension-induced cardiac fibrosis involving extracellular signal-regulated kinases. *Exp. Physiol.* 96: 287-294.
- Aragão, D.S., et al. 2011. Purification and characterization of angiotensin converting enzyme 2 (ACE2) from murine model of mesangial cell in culture. *Int. J. Biol. Macromol.* 49: 79-84.
- Samuel, P., et al. 2012. High Na intake increases renal angiotensin II levels and reduces expression of the ACE2-AT2R-MasR axis in obese Zucker rats. *Am. J. Physiol. Renal Physiol.* 303: F412-F419.
- Xiao, L., et al. 2013. Angiotensin II regulates ACE and ACE2 in neurons through p38 mitogen-activated protein kinase and extracellular signal-regulated kinase 1/2 signaling. *Am. J. Physiol., Cell Physiol.* 304: C1073-C1079.

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Try **ACE2 (E-11): sc-390851** or **ACE2 (AC18Z): sc-73668**, our highly recommended monoclonal alternatives to ACE2 (H-175).