

ACE (C-20): sc-12187

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 ACE. Unlike ACE, which is expressed ubiquitously throughout the vasculature, ACE2 is expressed only in cardiac, renal and testicular cells.

CHROMOSOMAL LOCATION

Genetic locus: ACE (human) mapping to 17q23.3; Ace (mouse) mapping to 11 E1.

SOURCE

ACE (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of ACE 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.

Blocking peptide available for competition studies, sc-12187 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ACE (C-20) is recommended for detection of ACE somatic and testis isoforms of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for ACE siRNA (h2): sc-270350, ACE siRNA (m): sc-29627, ACE shRNA Plasmid (h2): sc-270350-SH, ACE shRNA Plasmid (m): sc-29627-SH, ACE shRNA (h2) Lentiviral Particles: sc-270350-V and ACE shRNA (m) Lentiviral Particles: sc-29627-V.

Molecular Weight of ACE: 195 kDa.

Positive Controls: mouse kidney extract: sc-2255, human kidney extract: sc-363764 or IB4 whole cell lysate: sc-364780.

STORAGE

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

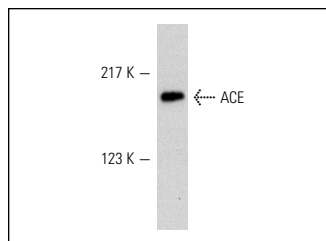
PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

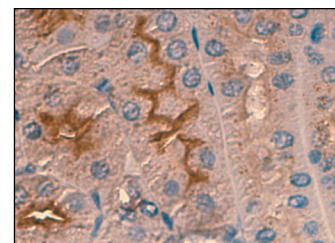
RESEARCH USE

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

DATA



ACE (C-20): sc-12187. Western blot analysis of ACE expression in mouse kidney tissue extract.



ACE (C-20): sc-12187. Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse kidney tissue showing membrane localization.

SELECT PRODUCT CITATIONS

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- Atanassova, N., et al. 2009. Expression of testicular angiotensin-converting enzyme in adult spontaneously hypertensive rats. *Folia Histochem. Cytobiol.* 47: 117-122.
- Sun, G., et al. 2009. Intramuscular renin-angiotensin system is activated in human muscular dystrophy. *J. Neurol. Sci.* 280: 40-48.
- Gonzalez-Villalobos, R.A., et al. 2010. Intrarenal mouse renin-angiotensin system during ANG II-induced hypertension and ACE inhibition. *Am. J. Physiol. Renal Physiol.* 298: F150-F157.
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- Li, L.J., et al. 2014. Human sperm devoid of germinal angiotensin-converting enzyme is responsible for total fertilization failure and lower fertilization rates by conventional *in vitro* fertilization. *Biol. Reprod.* 90: 125.
- Qiaoshan, Y., et al. 2014. Preparative purification of linarin extracts from *Dendranthema indicum* flowers and evaluation of its antihypertensive effect. *Evid. Based Complement. Alternat. Med.* 2014: 394276.
- Bundalo, M., et al. 2015. Fructose-rich diet-induced changes in the expression of the renin angiotensin system molecules in the heart of ovariectomized female rats could be reversed by estradiol. *Horm. Metab. Res.* 47: 521-527.
- Ekerbicer, N., et al. 2016. Effects of high doses of dexamethasone on hemodynamic and immunohistochemical characteristics of acute paraquat intoxication in rat kidneys. *Biotech. Histochem.* 21: 1-10.



Try **ACE (2E2): sc-23908** or **ACE (B-6): sc-374198**, our highly recommended monoclonal alternatives to ACE (C-20). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **ACE (2E2): sc-23908**.