BACKGROUND
Angiotensin-converting enzyme (ACE) is a carboxy-terminal dipeptidyl exopeptidase that converts Angiotensin I to the potent vasoressive 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 fluid/electrolyte homeostasis. Although it bears significant sequence homology to ACE, ACE2 shows a more restricted pattern of expression. ACE is expressed ubiquitously throughout the vasculature while ACE2 is expressed only in cardiac, renal and testicular cells.

REFERENCES

CHROMOSOMAL LOCATION
Genetic locus: ACE (human) mapping to 17q23.3; Ac e (mouse) mapping to 11 E1.

SOURCE
ACE (H-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 1279-1306 at the C-terminus of ACE of human origin.

PRODUCT
Each vial contains 200 µg IgA kappa light chain in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.
Blocking peptide available for competition studies, sc-376132 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS
ACE (H-9) 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), 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).

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.

SELECT PRODUCT CITATIONS

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.

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

See ACE (2E2): sc-23908 for ACE antibody conjugates, including AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647.