BACKGROUND

Angiotensin-converting enzyme (ACE) is a carboxyl-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 sperm atocytes. 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.

REFERENCES


CHROMOSOMAL LOCATION

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

SOURCE

ACE (5C5) is a mouse monoclonal antibody raised against Angiotensin-converting enzyme from human lung.

PRODUCT

Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ACE (5C5) is available conjugated to agarose (sc-23909 AC), 500 µg/0.25 ml agarose in 1 ml, for IP.

RESEARCH USE

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

APPLICATIONS

ACE (5C5) is recommended for detection of ACE 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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50:1:500).


Molecular Weight of ACE: 195 kDa.


DATA

Western blot analysis of ACE expression in human kidney tissue extract immunoprecipitated with ACE (5C5): sc-23909 and detected with ACE (N-20): sc-12184.

ACE (5C5): sc-23909. Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse kidney showing membrane and extracellular localization.

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.

PROTOCOLS

See our website 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.