**BACKGROUND**

Angiotensin-converting enzyme (ACE) is a carboxy-terminal dipeptidyl exopeptidase that converts Angiotensin I to the potent vasopressive 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.

**CHROMOSOMAL LOCATION**

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

**SOURCE**

ACE (2E2) is a mouse monoclonal antibody raised against angiotensin-converting enzyme from human kidney.

**PRODUCT**

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

ACE (2E2) is available conjugated to agarose (sc-23908 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-23908 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-23908 PE), fluorescein (sc-23908 FITC), Alexa Fluor® 488 (sc-23908 AF488), Alexa Fluor® 546 (sc-23908 AF546), Alexa Fluor® 594 (sc-23908 AF594) or Alexa Fluor® 647 (sc-23908 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-23908 AF680) or Alexa Fluor® 790 (sc-23908 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**APPLICATIONS**

ACE (2E2) is recommended for detection of ACE of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1,000), 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.


**RESEARCH USE**

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

**DATA**

**STORAGE**

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

**SELECT PRODUCT CITATIONS**


**APPLICATIONS**


ACE (2E2): sc-23908. Immunoperoxidase staining of formalin fixed, paraffin-embedded human small intestine tissue showing apical membrane staining of glandular cells (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing membrane staining of cells in tubules (B).