ACE2 (E-11): sc-390851

BACKGROUND

Angiotensin-converting enzyme (ACE) is a carboxyl-terminal dipeptidyl exopeptidase that converts angiotensin I to the potent vasopressive hormone, angiotensin II. There are two isozymes of ACE, the pulmonary ACEP and the testicular ACE. ACEP is a glycoprotein expressed in vascular endothelial cells of the lung, liver, adrenal cortex, pancreas, kidney and spleen. The ACE 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: ACE2 (human) mapping to Xp22.2; Ace2 (mouse) mapping to X F5.

SOURCE

ACE2 (E-11) is a mouse monoclonal antibody raised against amino acids 631-805 of ACE2 of human origin.

PRODUCT

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

ACE2 (E-11) is available conjugated to agarose (sc-390851 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390851 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390851 PE), fluorescein (sc-390851 FITC), Alexa Fluor® 488 (sc-390851 AF488), Alexa Fluor® 546 (sc-390851 AF546), Alexa Fluor® 594 (sc-390851 AF594) or Alexa Fluor® 647 (sc-390851 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390851 AF680) or Alexa Fluor® 790 (sc-390851 AF790), 200 µg/ml, for Near-Infrared (IR) WB, IF and FCM.


Molecular Weight of ACE2: 90 kDa.

Positive Controls: ACE2 (m): 293T Lysate: sc-118196 or human kidney extract: sc-363764.

APPLICATIONS

ACE2 (E-11) is recommended for detection of ACE2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30:1-3000).


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

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgGx BP-HP: sc-516102 or m-IgGx BP-HP (Cruz Marker); sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2035 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGx BP-FITC: sc-516140 or m-IgGx BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGx BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

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