

ACE2 (m): 293T Lysate: sc-118196

BACKGROUND

Angiotensin-converting enzyme (ACE) is a carboxy-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 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

1. Erdos, E.G. and Yang, H.Y. 1967. An enzyme in microsomal fraction of kidney that inactivates bradykinin. *Life Sci.* 6: 569-574.
2. Soffer, R.L. 1976. Angiotensin-converting enzyme and the regulation of vasoactive peptides. *Annu. Rev. Biochem.* 45: 73-94.
3. Caldwell, P.R., et al. 1976. Angiotensin-converting enzyme: vascular endothelial localization. *Science* 191: 1050-1051.
4. Soffer, R.L., ed. 1981. *Biochemical Regulation of Blood Pressure*. New York: Wiley-Interscience.
5. El-Dorry, H.A., et al. 1982. Molecular and catalytic properties of rabbit testicular dipeptidyl carboxypeptidase. *J. Biol. Chem.* 257: 14128-14133.
6. Kumar, R.S., et al. 1991. The mRNAs encoding the two angiotensin-converting isozymes are transcribed from the same gene by a tissue-specific choice of alternative transcription initiation sites. *J. Biol. Chem.* 266: 3854-3862.
7. Thekkumkara, T.J., et al. 1992. Use of alternative polyadenylation sites for tissue-specific transcription of two angiotensin-converting enzyme mRNAs. *Nucleic Acids Res.* 20: 683-687.
8. Langford, K.G., et al. 1993. Regulated expression of testis angiotensin-converting enzyme during spermatogenesis in mice. *Biol. Reprod.* 48: 1210-1218.

CHROMOSOMAL LOCATION

Genetic locus: *Ace2* (mouse) mapping to X F5.

PRODUCT

ACE2 (m): 293T Lysate represents a lysate of mouse ACE2 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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

APPLICATIONS

ACE2 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive ACE2 antibodies. Recommended use: 10-20 µl per lane.

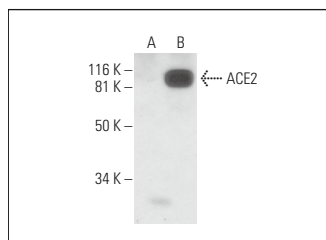
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

ACE2 (E-11): sc-390851 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse ACE2 expression in ACE2 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (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.

DATA



ACE2 (E-11): sc-390851. Western blot analysis of ACE2 expression in non-transfected: sc-117752 (A) and mouse ACE2 transfected: sc-118196 (B) 293T whole cell lysates.

RESEARCH USE

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