

ACE2 Antibody

ACE2 (NT): Angiotensin converting enzyme 2

CATALOG NO.: 3227

BACKGROUND:

Angiotensin-converting enzyme 2 (ACE2) plays a central role in vascular, renal, and myocardial physiology (1-2). In contrast to its homolog ACE, ACE2 expression is restricted to heart, kidney, and testis. Recently, ACE2 has also been shown to be a functional receptor of the SARS coronavirus (3). The normal function of ACE2 is to convert the inactive vasoconstrictor angiotensin I (AngI) to Ang1-9 and the active form AngII to Ang1-7, unlike ACE, which converts AngI to AngII. While the role of these vasoactive peptides is not well understood, lack of ACE2 expression in *ace2^{-/-}* mice leads to severely reduced cardiac contractility, indicating its importance in regulating heart function (4).

SOURCE:

Rabbit polyclonal ACE2 antibody was raised against a synthetic peptide corresponding to amino acids near the N-terminus of human ACE2 (Genbank accession NP_068576).

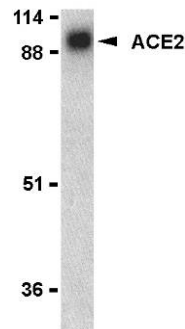
APPLICATION:

ACE2 antibody can be used for the detection of ACE2 by Western blot at 0.5 to 2 µg/ml. (Optimal dilution should be determined by user.) Human kidney or human testis cell lysate can be used as positive control and a 90 kDa band can be detected. ACE2 antibody can also detect ACE2 by immunohistochemistry at 2 µg/ml. ACE2 antibody is human specific, and has no cross response to ACE1.

For research use only.

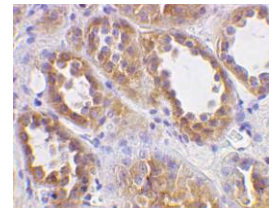
STORAGE:

ACE2 antibody is supplied as immunoaffinity purified IgG in PBS containing 0.02% sodium azide. Store at 4°C, stable for one year.



Western blot analysis of ACE2 in human kidney lysate with ACE2 antibody at 1 µg/ml.

Immunohistochemical staining of human kidney cells using ACE2 antibody at 2 µg/ml.



RELATED PRODUCTS:

Blocking peptide, Catalog No. **3227P**.
Human Kidney Lysate, Catalog No. **1305**.
ACE2 Antibody (CT), Catalog No. **3217**.
SARS Spike Antibody (CT), Catalog No. **3525**.
SARS Spike Antibody (NT), Catalog No. **3219**.

REFERENCES:

1. Donoghue M, Hsieh F, Baronas E, et al. A novel angiotensin-converting enzyme-related carboxypeptidase (ACE2) converts angiotensin I to angiotensin 1-9. *Circ. Res.* 2000;87:1-9.
2. Tipnis SR, Hooper NM, Hyde R, et al. A human homolog of angiotensin-converting enzyme. Cloning and functional expression as a captopril-insensitive carboxypeptidase. *J Biol. Chem.* 2000;275:33238-43.
3. Li W, Moore MJ, Vasileva N, et al. Angiotensin-converting enzyme 2 is a functional receptor for the SARS coronavirus. *Nature* 2003;426:450-4.
4. Crackower MA, Sarao R, Oudit GY, et al. Angiotensin-converting enzyme 2 is an essential regulator of heart function. *Nature* 2002;417:822-8.