Anti-ACE2 Antibody [SN0754] - BSA and Azide free

HA750264

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat, Hamster
Applications:	WB, IF-Cell, IHC-P, IF-Tissue, IP
Molecular Wt:	Predicted band size: 92 kDa
Clone number:	SN0754

Description: Angiotensin-converting enzyme (ACE) is a carboxyl-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 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.

Immunogen: Synthetic peptide within Human ACE2 aa 181-230 / 805.

Positive control: Caco-2 cell lysate, HepG2 cell lysate, 293T cell lysate, Mouse testis tissue lysate, Mouse lung tissue lysate, Rat testis tissue lysate, Rat lung tissue lysate, Hamster testis tissue lysates, Hamster stomach tissue lysates, 293, MCF-7, HepG2, human testis tissue, human kidney tissue, mouse kidney tissue, rat kidney tissue.

Subcellular location: Cell membrane, Cell projection, Cytoplasm, Membrane, Secreted.

Database links: SwissProt: Q9BYF1 Human | Q8R0I0 Mouse | Q5EGZ1 Rat | A0A1U7QTA1 Hamster

Recommended Dilutions:

WB	1:1,000-1:5,000
IF-Cell	1:100-1:500
IHC-P	1:1,000
IF-Tissue	1:200
IP	Use at an assay dependent concentration.

Storage Buffer: PBS (pH7.4).

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃ or -80℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Images

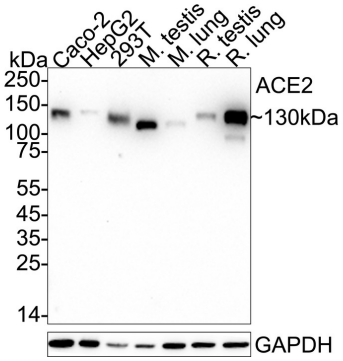

Fig1: Western blot analysis of ACE2 on different lysates with Rabbit anti-ACE2 antibody (HA750264) at 1/2,000 dilution.

Lane 1: Caco-2 cell lysate (20 µg/Lane)
Lane 2: HepG2 cell lysate (20 µg/Lane)
Lane 3: 293T cell lysate (20 µg/Lane)
Lane 4: Mouse testis tissue lysate (40 µg/Lane)
Lane 5: Mouse lung tissue lysate (40 µg/Lane)
Lane 6: Rat testis tissue lysate (40 µg/Lane)
Lane 7: Rat lung tissue lysate (40 µg/Lane)

Predicted band size: 92 kDa
Observed band size: 130 kDa

Exposure time: 3 minutes; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA750264) at 1/2,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

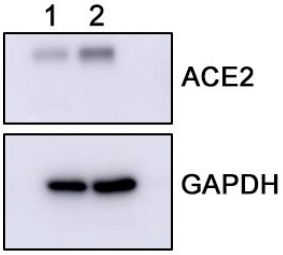

Fig2: Western blot analysis of ACE2 on Hamster testis (1) and stomach (2) tissue lysates using anti-ACE2 antibody at 1/1,000 dilution.

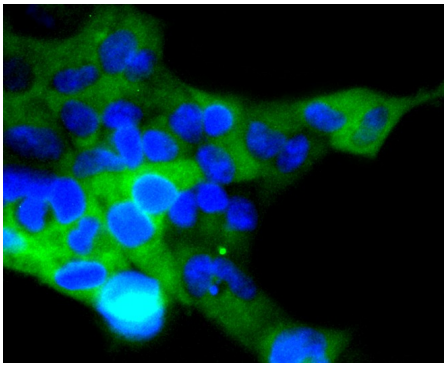

Fig3: ICC staining of ACE2 in 293 cells (green). Formalin fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 10 minutes at room temperature and blocked with 1% Blocker BSA for 15 minutes at room temperature. Cells were probed with the primary antibody (HA750264, 1/50) for 1 hour at room temperature, washed with PBS. Alexa Fluor®488 Goat anti-Rabbit IgG was used as the secondary antibody at 1/1,000 dilution. The nuclear counter stain is DAPI (blue).

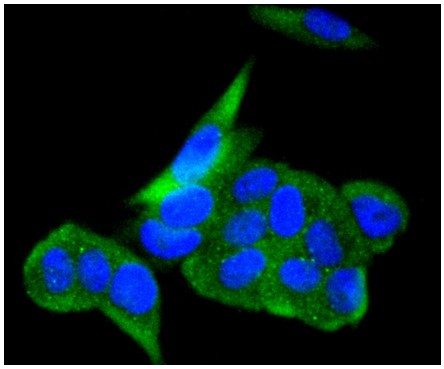

Fig4: ICC staining of ACE2 in MCF-7 cells (green). Formalin fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 10 minutes at room temperature and blocked with 1% Blocker BSA for 15 minutes at room temperature. Cells were probed with the primary antibody (HA750264, 1/50) for 1 hour at room temperature, washed with PBS. Alexa Fluor®488 Goat anti-Rabbit IgG was used as the secondary antibody at 1/1,000 dilution. The nuclear counter stain is DAPI (blue).

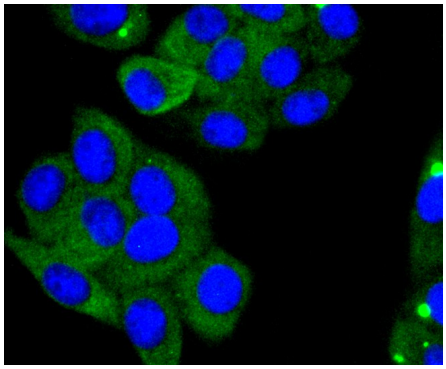

Fig5: ICC staining of ACE2 in HepG2 cells (green). Formalin fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 10 minutes at room temperature and blocked with 1% Blocker BSA for 15 minutes at room temperature. Cells were probed with the primary antibody (HA750264, 1/50) for 1 hour at room temperature, washed with PBS. Alexa Fluor®488 Goat anti-Rabbit IgG was used as the secondary antibody at 1/1,000 dilution. The nuclear counter stain is DAPI (blue).

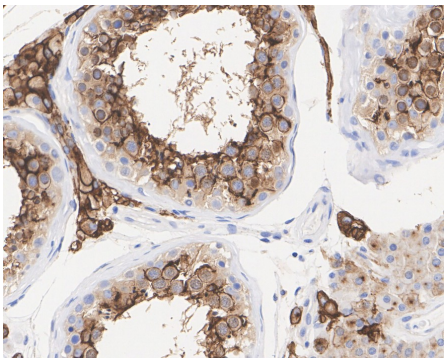

Fig6: Immunohistochemical analysis of paraffin-embedded human testis tissue with Rabbit anti-ACE2 antibody (HA750264) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA750264) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

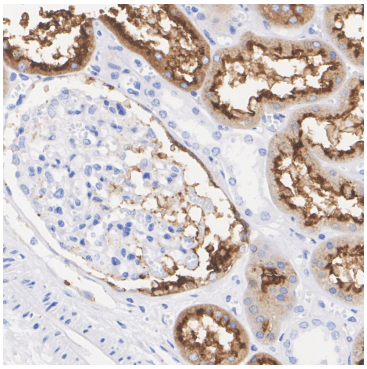

Fig7: Immunohistochemical analysis of paraffin-embedded human kidney tissue with Rabbit anti-ACE2 antibody (HA750264) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA750264) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

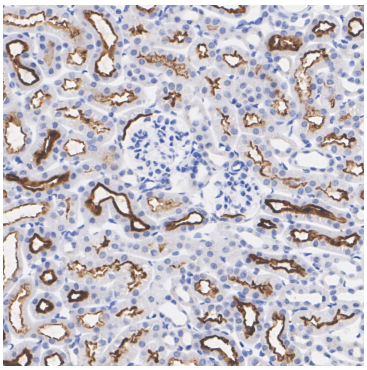

Fig8: Immunohistochemical analysis of paraffin-embedded mouse kidney tissue with Rabbit anti-ACE2 antibody (HA750264) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA750264) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

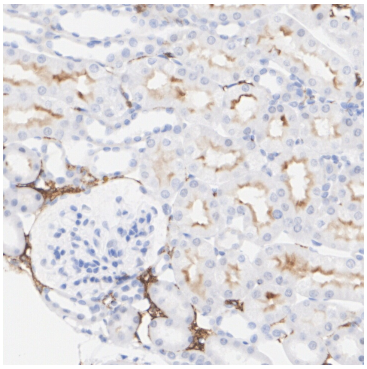

Fig9: Immunohistochemical analysis of paraffin-embedded rat kidney tissue with Rabbit anti-ACE2 antibody (HA750264) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA750264) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

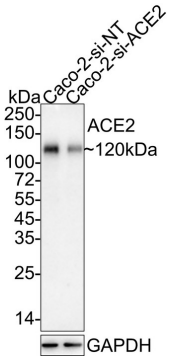

Fig10: Western blot analysis of ACE2 on different lysates with Rabbit anti-ACE2 antibody (HA750264) at 1/1,000 dilution.

Lane 1: Caco-2-si NT cell lysate
Lane 2: Caco-2-si ACE2 cell lysate

Lysates/proteins at 10 µg/Lane.

Predicted band size: 92 kDa
Observed band size: 120 kDa

Exposure time: 1 minute 23 seconds;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA750264) at 1/1,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

Background References

1. Wang CW et al. ACE2 in chronic disease and COVID-19: gene regulation and post-translational modification. J Biomed Sci. 2023 Aug
2. Wang J et al. ACE2 Shedding and the Role in COVID-19. Front Cell Infect Microbiol. 2022 Jan