ARG54913
anti-ACE2 antibody

Package: 50 µg
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes ACE2
Tested Reactivity	Hu, Ms, Rat
Predict Reactivity	Bat, Cat, Frt
Tested Application	ELISA, ICC/IF, IHC-Fr, IHC-P, WB
Specificity	Anti-ACE2 has no cross response to ACE1.
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	ACE2
Species	Human
Immunogen	Synthetic peptide within the last 50 aa of Human ACE2 (CKGENNPGFQNTDDVQTSF).
Conjugation	Un-conjugated
Alternate Names	Angiotensin-converting enzyme homolog; ACEH; Angiotensin-converting enzyme 2; Metalloprotease MPROT15; ACE-related carboxypeptidase; EC 3.4.17.23

Application Instructions

Application table

Application	Dilution
ELISA	Assay-dependent
ICC/IF	5 - 10 µg/ml
IHC-Fr	2 - 20 µg/ml
IHC-P	2 - 20 µg/ml
WB	1 - 2 µg/ml

Application Note: IHC-P: Antigen Retrieval: Heat mediation was performed in Citrate buffer (pH 6.0).
* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Observed Size: ~ 105 kDa

Properties

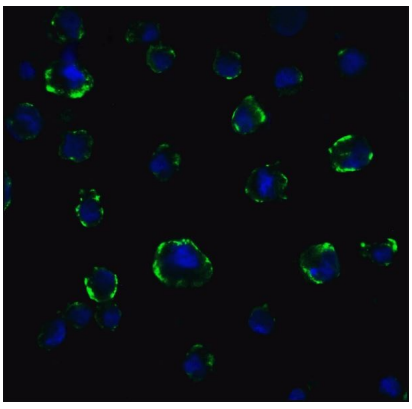
Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	PBS and 0.02% Sodium azide

Preservative	0.02% Sodium azide
Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

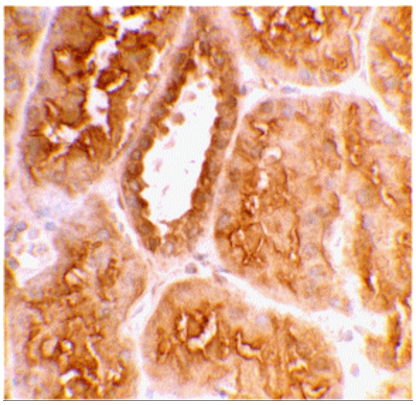
Gene Symbol	ACE2
Gene Full Name	angiotensin I converting enzyme 2
Background	ACE2 Antibody: Angiotensin-converting enzyme 2 (ACE2) plays a central role in vascular, renal, and myocardial physiology. In contrast to its homolog ACE, ACE2 expression is restricted to heart, kidney, and testis. Recently. ACE2 has also been shown to be a functional receptor of the SARS coronavirus. 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-/ace2- mice leads to severely reduced cardiac contractility, indicating its importance in regulating heart function.
Function	Carboxypeptidase which converts angiotensin I to angiotensin 1-9, a peptide of unknown function, and angiotensin II to angiotensin 1-7, a vasodilator. Also able to hydrolyze apelin-13 and dynorphin-13 with high efficiency. May be an important regulator of heart function. In case of human coronaviruses SARS and HCoV-NL63 infections, serve as functional receptor for the spike glycoprotein of both coronaviruses. [UniProt]
Highlight	Related products: ACE2 antibodies; ACE2 ELISA Kits; ACE2 recombinant proteins; Anti-Rabbit IgG secondary antibodies; Related news: HMGB1, a biomarker and therapeutic target in COVID-19 ACE2, receptor of 2019-nCoV
Research Area	Cell Biology and Cellular Response antibody
Calculated Mw	92 kDa
PTM	N-glycosylation on Asn-90 may limit SARS infectivity. Proteolytic cleavage by ADAM17 generates a secreted form. Also cleaved by serine proteases: TMPRSS2, TMPRSS11D and HPN/TMPRSS1.

Images



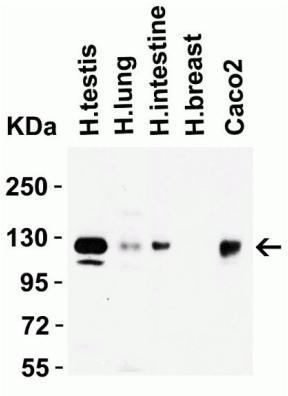
ARG54913 anti-ACE2 antibody ICC/IF image

Immunofluorescence: 4% Paraformaldehyde-fixed Caco-2 cells stained with ARG54913 anti-ACE2 antibody (green) at 5 µg/ml dilution. DAPI (blue) for nuclear staining.



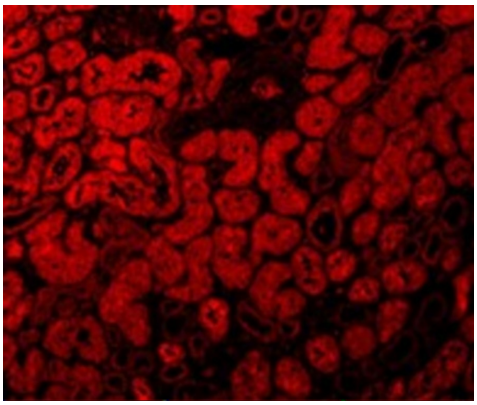
ARG54913 anti-ACE2 antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Human kidney tissue. Tissue was fixed with formaldehyde and blocked with 10% serum for 1 hour at RT. Antigen Retrieval: Heat mediation was performed in Citrate buffer (pH 6.0). The tissue section was stained with ARG54913 anti-ACE2 antibody at 2 µg/ml dilution, overnight at 4°C.



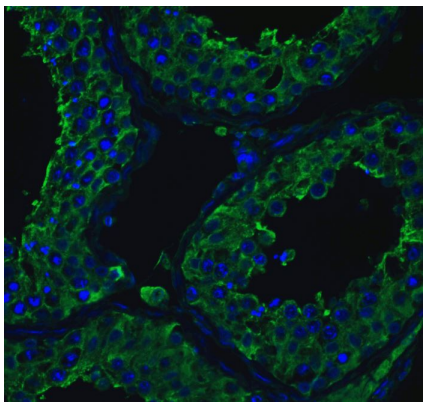
ARG54913 anti-ACE2 antibody WB image

Western blot: 15 µg of Human testis, Human lung, Human intestine, Human breast and Caco-2 cell lysates stained with ARG54913 anti-ACE2 antibody at 2 µg/ml dilution and incubated at RT for 1 hour in 5% NFDM/TBST.



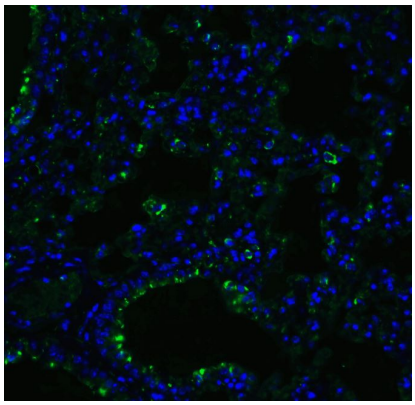
ARG54913 anti-ACE2 antibody IHC image

Immunohistochemistry: 4% Paraformaldehyde-fixed Human kidney tissue stained with ARG54913 anti-ACE2 antibody at 10 µg/ml dilution.



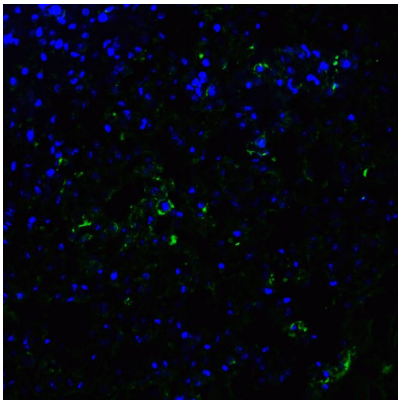
ARG54913 anti-ACE2 antibody IHC image

Immunohistochemistry: 4% Paraformaldehyde-fixed Human testis tissue stained with ARG54913 anti-ACE2 antibody (green) at 20 µg/ml dilution. DAPI (blue) for nuclear staining.



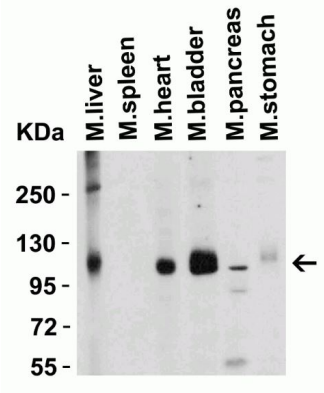
ARG54913 anti-ACE2 antibody IHC image

Immunohistochemistry: 4% Paraformaldehyde-fixed Mouse lung tissue stained with ARG54913 anti-ACE2 antibody (green) at 20 µg/ml dilution. DAPI (blue) for nuclear staining.



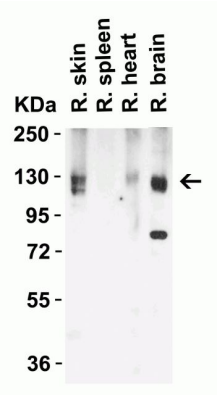
ARG54913 anti-ACE2 antibody IHC image

Immunohistochemistry: 4% Paraformaldehyde-fixed Rat lung tissue stained with ARG54913 anti-ACE2 antibody (green) at 20 µg/ml dilution. DAPI (blue) for nuclear staining.



ARG54913 anti-ACE2 antibody WB image

Western blot: 15 µg of Mouse liver, Mouse spleen, Mouse heart, Mouse bladder, Mouse pancreas and Mouse stomach lysates stained with ARG54913 anti-ACE2 antibody at 2 µg/ml dilution and incubated at RT for 1 hour in 5% NFDM/TBST.



ARG54913 anti-ACE2 antibody WB image

Western blot: 15 µg of Rat skin, Rat spleen, Rat heart and Rat brain lysates stained with ARG54913 anti-ACE2 antibody at 2 µg/ml dilution and incubated at RT for 1 hour in 5% NFDM/TBST.