

ACE2 / ACE-2 Antibody (Internal)
Rabbit Polyclonal Antibody
Catalog # ALS11371

Specification

ACE2 / ACE-2 Antibody (Internal) - Product Information

Application	IF, WB, IHC
Primary Accession	Q9BYF1
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	92kDa KDa

ACE2 / ACE-2 Antibody (Internal) - Additional Information

Gene ID 59272

Other Names

Angiotensin-converting enzyme 2, 3.4.17.23, ACE-related carboxypeptidase, Angiotensin-converting enzyme homolog, ACEH, Metalloprotease MPROT15, Processed angiotensin-converting enzyme 2, ACE2

Target/Specificity

synthetic peptide corresponding to amino acids near the center of human ACE2

Reconstitution & Storage

Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles. Store undiluted.

Precautions

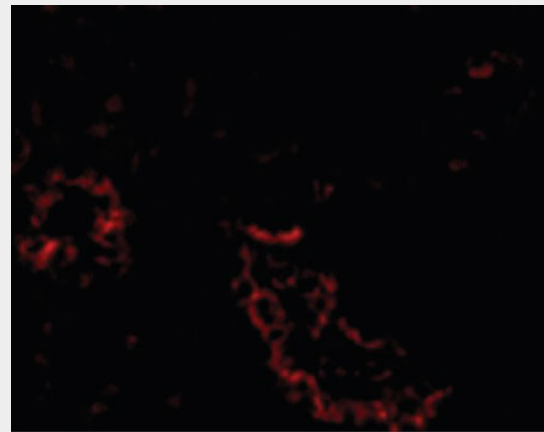
ACE2 / ACE-2 Antibody (Internal) is for research use only and not for use in diagnostic or therapeutic procedures.

ACE2 / ACE-2 Antibody (Internal) - Protein Information

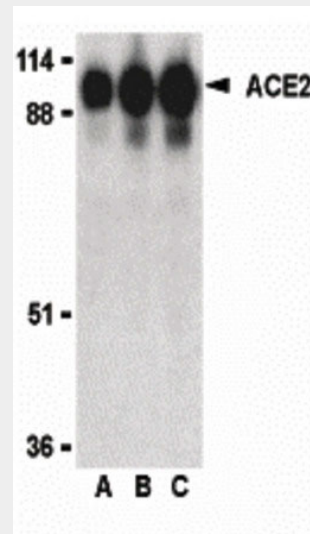
Name ACE2 ([HGNC:13557](#))

Function

Essential counter-regulatory carboxypeptidase of the renin- angiotensin hormone system that is a critical regulator of blood volume, systemic vascular resistance, and thus cardiovascular homeostasis (PubMed: <http://www.uniprot.org/citations/27217402> target="_blank">27217402). Converts angiotensin I to angiotensin 1- 9, a nine-amino acid peptide with anti-hypertrophic effects in cardiomyocytes,



Immunofluorescence of ACE2 in Human Kidney cells with ACE2 antibody at 20 ug/ml.



Western blot of ACE2 in human kidney lysate with ACE2 antibody at (A) 0.5, (B) 1 and (C) 2 ug/ml.

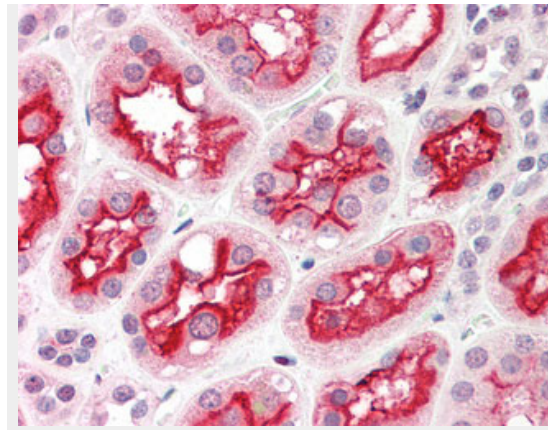
and angiotensin II to angiotensin 1-7, which then acts as a beneficial vasodilator and anti-proliferation agent, counterbalancing the actions of the vasoconstrictor angiotensin II (PubMed:10969042, PubMed:10924499, PubMed:11815627, PubMed:19021774, PubMed:14504186). Also removes the C-terminal residue from three other vasoactive peptides, neurotensin, kinetensin, and des-Arg bradykinin, but is not active on bradykinin (PubMed:10969042, PubMed:11815627). Also cleaves other biological peptides, such as apelin (apelin-13, [Pyr1]apelin-13, apelin-17, apelin-36), casomorphins (beta-casomorphin-7, neocasomorphin) and dynorphin A with high efficiency (PubMed:11815627, PubMed:27217402, PubMed:28293165). In addition, ACE2 C-terminus is homologous to collectrin and is responsible for the trafficking of the neutral amino acid transporter SL6A19 to the plasma membrane of gut epithelial cells via direct interaction, regulating its expression on the cell surface and its catalytic activity (PubMed:18424768, PubMed:19185582).

Cellular Location

[Processed angiotensin-converting enzyme 2]: Secreted

Tissue Location

Expressed in endothelial cells from small and large arteries, and in arterial smooth muscle cells (at protein level) (PubMed:15141377). Expressed in lung alveolar epithelial cells, enterocytes of the small intestine, Leydig cells and Sertoli cells (at protein level) (PubMed:15141377). Expressed in the renal proximal tubule and the small intestine (at protein level) (PubMed:18424768) Expressed in heart, kidney, testis, and gastrointestinal system (PubMed:10969042, PubMed:10924499, PubMed:15231706, PubMed:12459472, PubMed:15671045).



Anti-ACE-2 antibody IHC of human kidney.

ACE2 / ACE-2 Antibody (Internal) - Background

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.

ACE2 / ACE-2 Antibody (Internal) - References

Donoghue M.,et al.Circ. Res. 87:E1-E9(2000).
 Tipnis S.R.,et al.J. Biol. Chem. 275:33238-33243(2000).
 Douglas G.C.,et al.Endocrinology 145:4703-4711(2004).
 Itoyama S.,et al.Am. J. Med. Genet. A 136:52-57(2005).
 Suzuki Y.,et al.Submitted (JUL-2000) to the EMBL/GenBank/DDBJ databases.

ACE2 / ACE-2 Antibody (Internal) -

Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)