

**ACE2 Antibody**  
Rabbit mAb  
Catalog # AP90788

## Specification

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### ACE2 Antibody - Product Information

Application	WB, IHC, ICC, IP
Primary Accession	<a href="#">Q9BYF1</a>
Reactivity	Rat
Clonality	Monoclonal

#### Other Names

Angiotensin-converting enzyme 2; ACE-related carboxypeptidase; Angiotensin-converting enzyme homolog; ACEH; Processed angiotensin-converting enzyme 2; ACE 2; ACEH;

Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	92463 Da

### ACE2 Antibody - Additional Information

Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human ACE2
Description	ACE2 is a carboxypeptidase that catalyses the conversion of angiotensin I to angiotensin 1-9, or of angiotensin II to the vasodilator angiotensin 1-7. ACE2 is a critical component in the renin-angiotensin system (RAS). Also able to hydrolyze apelin-13 and dynorphin-13 with high efficiency. May be an important regulator of heart function.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

### ACE2 Antibody - 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:<a href="http://www.uniprot.org/citations/27217402" target="\_blank">27217402</a>). Converts angiotensin I to angiotensin 1- 9, a nine-amino acid peptide with anti-hypertrophic effects in cardiomyocytes, 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:<a href="http://www.uniprot.org/citations/10924499" target="\_blank">10924499</a>, PubMed:<a href="http://www.uniprot.org/citations/10969042" target="\_blank">10969042</a>, PubMed:<a href="http://www.uniprot.org/citations/11815627" target="\_blank">11815627</a>, PubMed:<a href="http://www.uniprot.org/citations/14504186" target="\_blank">14504186</a>, PubMed:<a href="http://www.uniprot.org/citations/19021774" target="\_blank">19021774</a>). Also removes the C-terminal residue from three other vasoactive peptides, neurotensin, kinetensin, and des-Arg bradykinin, but is not active on bradykinin (PubMed:<a href="http://www.uniprot.org/citations/10969042" target="\_blank">10969042</a>, PubMed:<a href="http://www.uniprot.org/citations/11815627" target="\_blank">11815627</a>). Also cleaves other biological peptides, such as apelins (apelin-13, [Pyr1]apelin-13, apelin-17, apelin-36), casomorphins (beta-casomorphin- 7, neocasomorphin) and dynorphin A with high efficiency (PubMed:<a href="http://www.uniprot.org/citations/11815627" target="\_blank">11815627</a>, PubMed:<a href="http://www.uniprot.org/citations/27217402" target="\_blank">27217402</a>, PubMed:<a href="http://www.uniprot.org/citations/28293165" target="\_blank">28293165</a>). 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:<a href="http://www.uniprot.org/citations/18424768" target="\_blank">18424768</a>, PubMed:<a href="http://www.uniprot.org/citations/19185582" target="\_blank">19185582</a>).

### Cellular Location

[Processed angiotensin-converting enzyme 2]: Secreted [Isoform 2]: Apical cell membrane

### Tissue Location

Expressed in endothelial cells from small and large arteries, and in arterial smooth muscle cells (at protein level) (PubMed:15141377). Expressed in 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 (at protein level) (PubMed:10924499, PubMed:10969042, PubMed:12459472, PubMed:15231706, PubMed:15671045, PubMed:32170560, PubMed:32715618). In lung, expressed at low levels in some alveolar type 2 cells, the expression seems to be individual- specific (at protein level) (PubMed:15141377, PubMed:32170560, PubMed:32425701, PubMed:32715618, PubMed:33432184). Expressed in nasal epithelial cells (at protein level) (PubMed:32333915, PubMed:33432184) Coexpressed with TMPRSS2 within some lung alveolar type 2 cells, ileal absorptive enterocytes, intestinal epithelial cells, cornea, gallbladder and nasal goblet secretory cells (PubMed:32327758, PubMed:32358202, PubMed:32413319). Coexpressed with TMPRSS4 within mature enterocytes (PubMed:32404436).

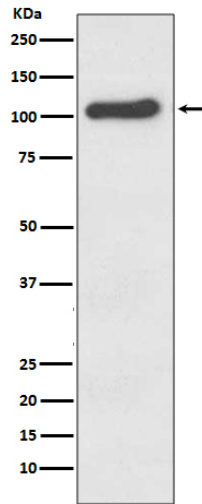
### ACE2 Antibody - Protocols

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](#)

### ACE2 Antibody - Images





Western blot analysis of ACE2 expression in Human kidney lysate.