10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-ACE2 Rabbit Monoclonal Antibody
Catalog # ABO13440

Specification

Anti-ACE2 Rabbit Monoclonal Antibody - Product Information

Application	**WB, IHC, IF, ICC, IP**
Primary Accession	Q9BYF1
Host	**Rabbit**
Isotype	**Rabbit IgG**
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Format	**Liquid**

Description
Anti-ACE2 Rabbit Monoclonal Antibody . Tested in WB, IHC, ICC/IF, IP applications. This antibody reacts with Human, Mouse, Rat.

Anti-ACE2 Rabbit Monoclonal Antibody - Additional Information

Gene ID 59272

Other Names
Angiotensin-converting enzyme 2, 3.4.17.23, Angiotensin-converting enzyme homolog, ACEH, Angiotensin-converting enzyme-related carboxypeptidase, ACE-related carboxypeptidase, 3.4.17.-, Metalloprotease MPROT15 {ECO:0000303|Ref.6}, Processed angiotensin-converting enzyme 2, ACE2 (HGNC:13557)

Calculated MW
92463 MW KDa

Application Details
WB 1:1000-1:2000
IHC 1:50-1:200
ICC/IF 1:50-1:200
IP 1:50

Subcellular Localization
Processed angiotensin-converting enzyme 2: Secreted.

Tissue Specificity
Expressed in endothelial cells from small and large arteries, and in arterial smooth muscle cells. Expressed in lung alveolar epithelial cells, enterocytes of the small intestine, Leydig cells and Sertoli cells (at protein level). Expressed in heart, kidney, testis, and gastrointestinal system..

Contents
Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

Immunogen
A synthesized peptide derived from human ACE2

Purification

Affinity-chromatography

Storage	**Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.**

Anti-ACE2 Rabbit Monoclonal 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:27217402). 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:10924499, PubMed:10969042, PubMed:11815627, PubMed:14504186, PubMed:19021774). 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 apelins (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 [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).

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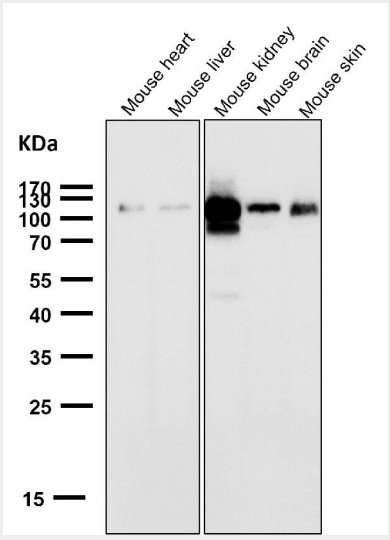
Anti-ACE2 Rabbit Monoclonal Antibody - Protocols

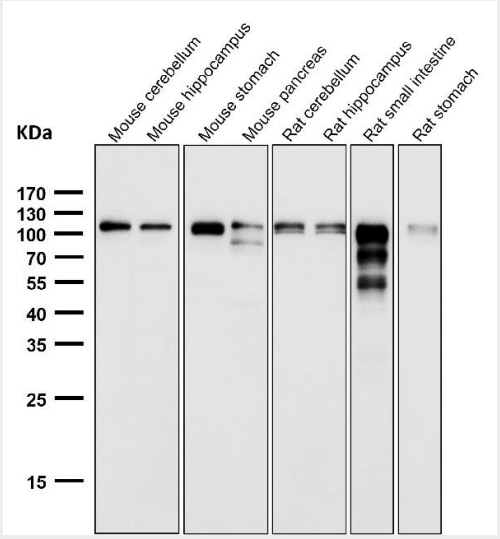
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-ACE2 Rabbit Monoclonal Antibody - Images



All lanes use the Antibody at 1:1K dilution for 1 hour at room temperature.



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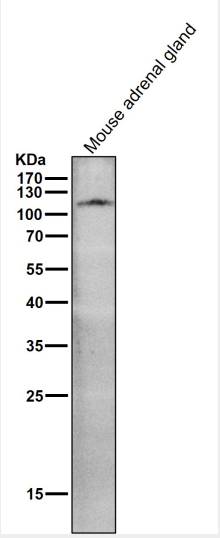
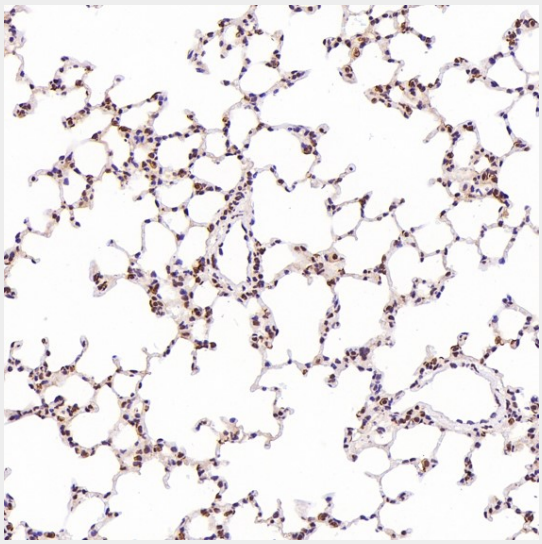
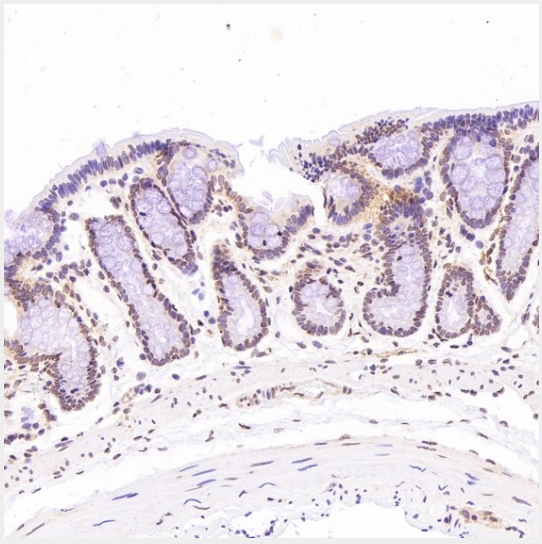


All lanes use the Antibody at 1:1K dilution for 1 hour at room temperature.



Immunohistochemical analysis of paraffin-embedded Rat liver, using the Antibody at 1:200 dilution.



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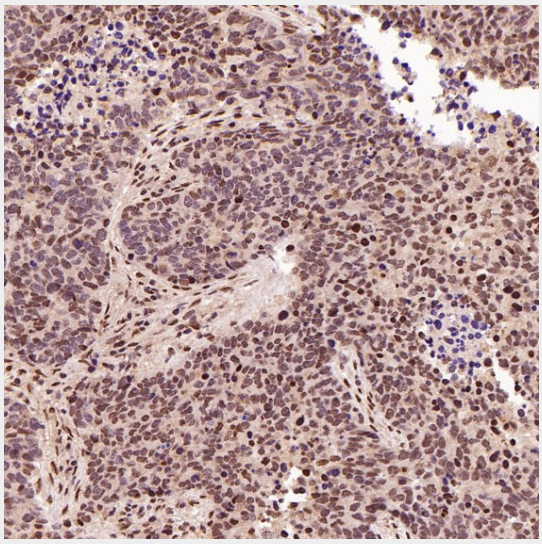
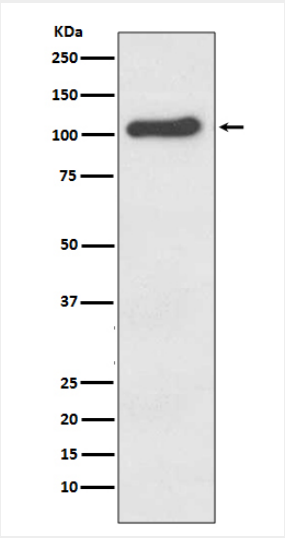
Immunohistochemical analysis of paraffin-embedded Rat stomach, using the Antibody at 1:200 dilution.



Immunohistochemical analysis of paraffin-embedded Human lung large cell cancer, using the Antibody at 1:50 dilution.



Western blot analysis of ACE2 expression in Human kidney lysate.

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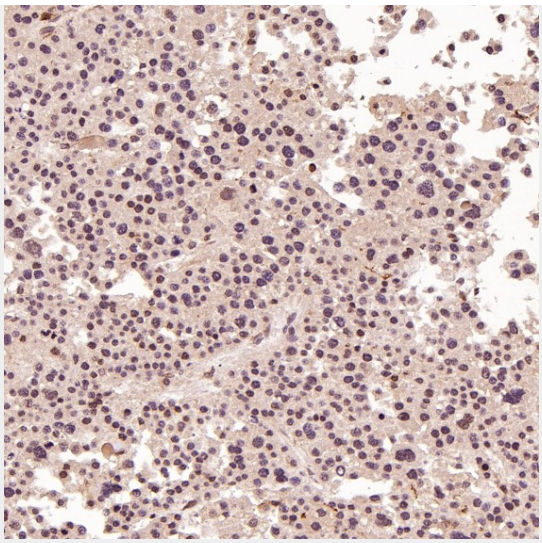
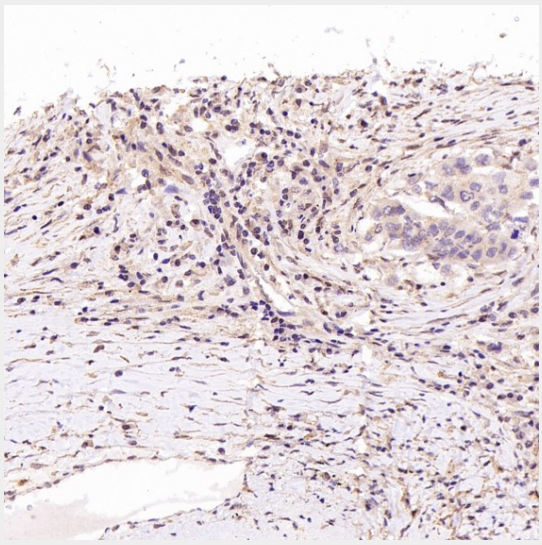
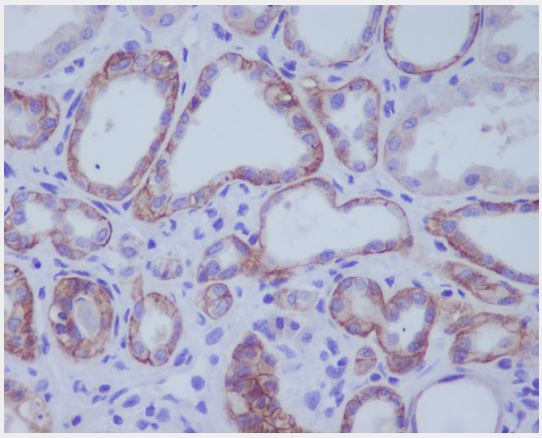


Immunohistochemical analysis of paraffin-embedded Human liver cancer, using the Antibody at 1:50 dilution.



Immunohistochemical analysis of paraffin-embedded Human squamous cell carcinoma , using the Antibody at 1:50 dilution.



Immunohistochemical analysis of paraffin-embedded human kidney, using ACE2 Antibody.