

## ACE2 Monoclonal antibody

Catalog Number: 66699-1-Ig

Featured Product

29 Publications

## Basic Information

<b>Catalog Number:</b> 66699-1-Ig	<b>GenBank Accession Number:</b> BC048094	<b>Purification Method:</b> Protein A purification
<b>Size:</b> 1856 µg/ml	<b>GeneID (NCBI):</b> 59272	<b>CloneNo.:</b> 2F12A4
<b>Source:</b> Mouse	<b>UNIPROT ID:</b> Q9BYF1	<b>Recommended Dilutions:</b> WB 1:2000-1:6000 IHC 1:1000-1:4000 IF 1:200-1:800
<b>Isotype:</b> IgG1	<b>Full Name:</b> angiotensin I converting enzyme (peptidyl-dipeptidase A) 2	
<b>Immunogen Catalog Number:</b> AG15554	<b>Calculated MW:</b> 805 aa, 92 kDa	
	<b>Observed MW:</b> 120 kDa, 92 kDa	

## Applications

## Tested Applications:

WB, IF-P, IHC, ELISA

## Cited Applications:

WB, IF, FC, IHC

## Species Specificity:

Human, mouse

## Cited Species:

human, mouse

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

## Positive Controls:

WB : human testis tissue, human skeletal muscle tissue

IHC : human small intestine tissue, human testis tissue, human kidney tissue, human colon tissue

IF : human kidney tissue, mouse testis tissue, mouse heart tissue

## Background Information

ACE2 (Angiotensin-converting enzyme 2), also named as ACEH, is a zinc metalloprotease of the ACE family and a critical regulator of the renin-angiotensin system. ACE2 has a more restricted tissue distribution than ACE, being found predominantly in the heart, kidneys, and testes although low levels have been detected in a variety of tissues (PMID:15983030). ACE2 has been shown to be a functional receptor of the human coronaviruses SARS-CoV and SARS-CoV-2 (PMID: 32142651). The expression level and expression pattern of human ACE2 in different tissues might be critical for the susceptibility, symptoms, and outcome of 2019-nCoV/SARS-CoV-2 infection (PMID: 32133153). It can be used as a potential therapeutic target of SARS-CoV-2 (PMID: 32125455). The calculated molecular weight of ACE2 is 92kDa but it migrates to 120kDa due to N-glycosylation (PMID:16166094). Sometimes, several cleaved fragments can also be detected as 75kDa, 50 kDa or 37kDa (PMID: 29561187, 22009550, 30759273). It has 2 isoforms produced by alternative splicing. This antibody is specific to ACE2. The location of ACE2 is membrane and cytoplasm, however it accumulates in the nucleus during the mitosis (PMID: 1730413/PMID: 18292088).

## Notable Publications

Author	Pubmed ID	Journal	Application
Shunhua Long	36178477	Viral Immunol	IF
Shengjie Li	32991984	Ocul Surf	IHC
Ni Huang	33140061	medRxiv	WB, IF, FC

## Storage

## Storage:

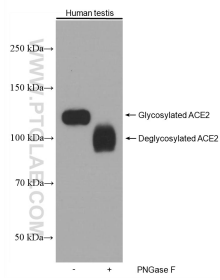
Store at -20°C. Stable for one year after shipment.

## Storage Buffer:

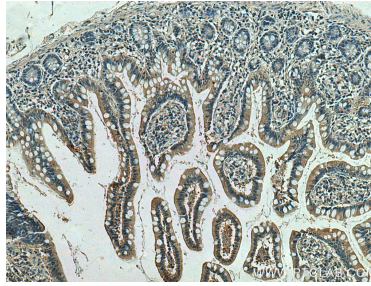
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

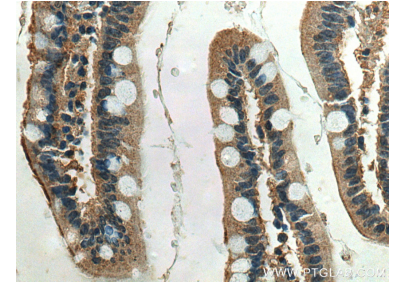
## Selected Validation Data



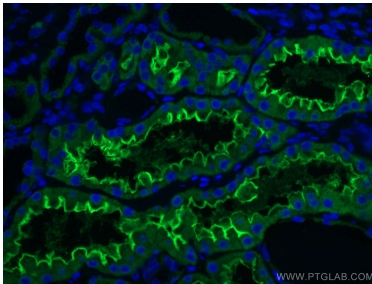
Untreated and PNGase F-treated lysates of human testis tissue were subjected to SDS PAGE followed by western blot with 66699-1-Ig (ACE2 antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours. PNGase F was obtained from Atagenix (cat.NO. ata808).



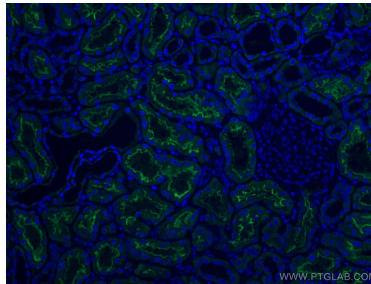
Immunohistochemical analysis of paraffin-embedded human small intestine tissue slide using 66699-1-Ig (ACE2 antibody) at dilution of 1:2000 (under 10x lens)..



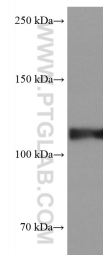
Immunohistochemical analysis of paraffin-embedded human small intestine tissue slide using 66699-1-Ig (ACE2 antibody) at dilution of 1:2000 (under 40x lens)..



Immunofluorescent analysis of (4% PFA) fixed human kidney tissue using ACE2 antibody (66699-1-Ig, Clone: 2F12A4) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L).



Immunofluorescent analysis of (4% PFA) fixed human kidney tissue using ACE2 antibody (66699-1-Ig, Clone: 2F12A4) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L).



human testis tissue were subjected to SDS PAGE followed by western blot with 66699-1-Ig (ACE2 antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours.