For Research Use Only

# ACE2 Monoclonal antibody

Catalog Number:66699-1-Ig Featured Product 29 Publications

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## Basic Information

Catalog Number:
66699-1-Ig

Size:
1856 μg/ml

Source:
Mouse

Isotype:
IgG1

Immunogen Catalog Number:
AG15554

GenBank Accession Number:
BC048094

GeneID (NCBI):
59272

UNIPROT ID:
Q9BYF1

Full Name:
angiotensin I converting enzyme (peptidyl-dipeptidase A) 2

Calculated MW:
805 aa, 92 kDa

Observed MW:
120 kDa, 92 kDa

Purification Method:
Protein A purification

CloneNo.:
2F12A4

Recommended Dilutions:
WB 1:2000-1:6000
IHC 1:1000-1:4000
IF 1:200-1:800

## 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 reninangiotensin 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

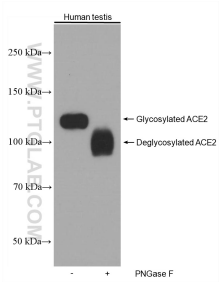
| Author | Pubmed ID | Journal | Application |
|---|---|---|---|
| Shunhua Long | 36178477 | Viral Immunol | IF |
| Shengjie Li | 32991984 | Ocul Surf | IHC |
| Ni Huang | 33140061 | medRxiv | WB, IF, FC |

## Storage

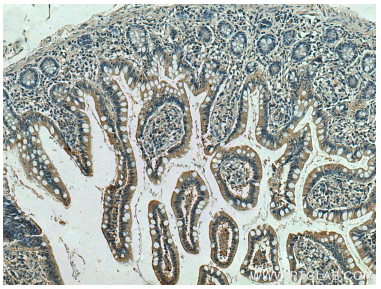
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:
T: 4006900926 E: Proteintech-CN@ptglab.com W: ptgcn.com

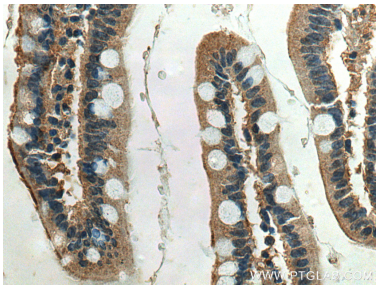
## Selected Validation Data



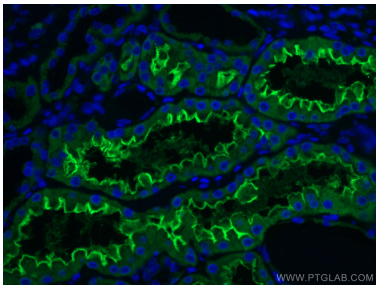

Untreated and PNGase F-treated lysates of human testis tissue were subjected to SDS PAGE followed by western blot with 66699-1-Ig (ACE2 antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours. PNGase F was obtained from Atagenix (cat.NO. ata808).



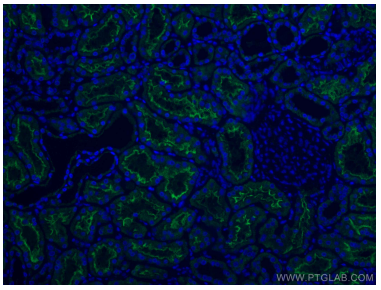

Immunohistochemical analysis of paraffin-embedded human small intestine tissue slide using 66699-1-Ig (ACE2 antibody) at dilution of 1:2000 (under 10x lens)..




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).

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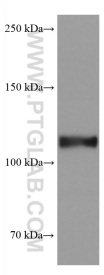


human testis tissue were subjected to SDS PAGE followed by western blot with 66699-1-Ig (ACE2 antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours.