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# ACE2 Antibody

Store at -20C  
#4355

**For Research Use Only. Not for Use in Diagnostic Procedures.**

<b>Applications:</b> W, IP	<b>Reactivity:</b> H	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 120-135	<b>Source/Isotype:</b> Rabbit	<b>UniProt ID:</b> #Q9BYF1	<b>Entrez-Gene Id:</b> 59272
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## Product Usage Information

### Application

Western Blotting  
Immunoprecipitation

### Dilution

1:1000  
1:50

## Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

## Specificity/Sensitivity

ACE2 Antibody recognizes endogenous level of glycosylated ACE2 protein. This antibody also cross-reacts with 55 and 75 kDa proteins of unknown origin in some cells.

## Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human ACE2 protein. Antibodies are purified by protein A and peptide affinity chromatography.

## Background

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 (1). ACE2 is a critical component in the renin-angiotensin system (RAS). ACE2 is predominantly expressed in vascular endothelial cells of the heart and kidney and Leydig and Sertoli cells of the testis (2,3). The unique expression pattern of ACE2 determines its essential role in the regulation of cardiovascular and kidney functions, as well as fertility. ACE2 protein is localized mainly in the extracellular space with its carboxy terminal end attached to the membrane via its transmembrane domain. Active ACE2 enzyme is secreted by cleavage at the amino terminus. Research studies have shown that ACE2 expression is elevated in human failing heart (4). ACE2 has also been identified as the receptor for SARS and SARS-CoV-2 coronaviruses (5-7).

## Background References

- Schmidt, B.L. et al. (2000) *J Clin Microbiol* 38, 1279-82.
- Boehm, M. and Nabel, E.G. (2002) *N Engl J Med* 347, 1795-7.
- Douglas, G.C. et al. (2004) *Endocrinology* 145, 4703-11.
- Goulter, A.B. et al. (2004) *BMC Med* 2, 19.
- Li, W. et al. (2005) *EMBO J* 24, 1634-43.
- Hoffmann, M. et al. (2020) *Cell* 181, 271-280.e8.
- Lan, J. et al. (2020) *Nature* 581, 215-20.

## Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

## Western Blot Buffer

**IMPORTANT:** For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

## Applications Key

**W:** Western Blotting **IP:** Immunoprecipitation

## Cross-Reactivity Key

**H:** Human

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