

#4355 Store at -20°C

ACE2 Antibody



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For Research Use Only. Not For Use In Diagnostic Procedures.

Applications W, IP Endogenous	Species Cross-Reactivity* H	Molecular Wt. 120 kDa	Isotype Rabbit**
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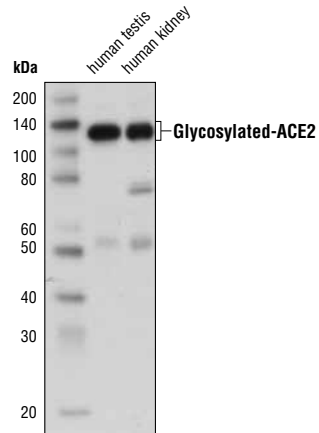
Background: ACE2 is a carboxypeptidase that catalyses the conversion of angiotensin I to angiotensin 1-9, or of angiotensin II to the vasodilator angiotensin 1-7 (1). ACE2 is a critical component in the renin-angiotensin system (RAS). ACE2 is predominantly expressed in vascular endothelial cells of the 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 is also a functional receptor for SARS coronavirus (SARS-CoV) (5).

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 amino terminus of human ACE2 protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background References:

- (1) Schmidt, B.L. et al. (2000) *J Clin Microbiol* 38, 1279-82.
- (2) Boehm, M. and Nabel, E.G. (2002) *N Engl J Med* 347, 1795-7.
- (3) Douglas, G.C. et al. (2004) *Endocrinology* 145, 4703-11.
- (4) Goulter, A.B. et al. (2004) *BMC Med* 2, 19.
- (5) Li, W. et al. (2005) *EMBO J* 24, 1634-43.



Western blot analysis of extracts from human testis and kidney tissue using ACE2 Antibody.

Entrez-Gene ID #59272
Swiss-Prot Acc. #Q9BYF1

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.

***Species cross-reactivity is determined by western blot.**
****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:
Western blotting 1:1000
Immunoprecipitation 1:50

For product specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended complementary products.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

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Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide
Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine
Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.