

Mouse anti-Human ACE2 Monoclonal Antibody | anti-ACE2 antibody

Recombinant Anti-ACE2 Neutralizing Antibody

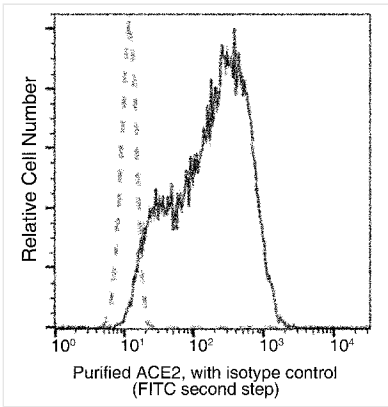
CATALOG # AAA257500	HOST Mouse	REACTIVITY Human	APPLICATIONS Flow Cytometry, Functional Assay, Immunohistochemistry, ELISA
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PRODUCT SYNONYMS

ACE2; Monoclonal Antibody; Recombinant Anti-ACE2 Neutralizing Antibody; ACE2 Neutralizing Antibody; Mouse Mab; Anti-ACEH Antibody; angiotensin I converting enzyme 2; anti-ACE2 antibody

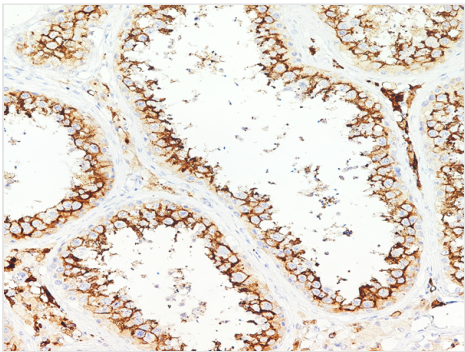
PRODUCT SPECIFICATIONS

Host	Mouse
Reactivity	Human
Clonality	Monoclonal
Isotype	Mouse IgG1
Clone Number	MM37H
Specificity	Human ACE2
Purity/Purification	Protein A
Form/Format	Liquid. 0.2um filtered solution in PBS
Applicable Applications for anti-ACE2 antibody	FCM/FACS (Flow Cytometry), IHC (Immunohistochemistry), ELISA
Antibody Type	Recombinant Antibody
Immunogen	Recombinant Human ACE2 Protein
Endotoxin	<10EU/mg
Conjugation	Unconjugated
Preparation	This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with purified, recombinant Human ACE2 (rh ACE2. Met1-Ser740; NP_068576.1). The IgG fraction of the cell culture supernatant was purified by Protein A affinity chromatography.
Preparation and Storage	This antibody can be stored at 2-8 degree C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20 degree C to -80 degree C. Preservative-Free. Avoid repeated freeze-thaw cycles. This antibody is shipped as liquid solution at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.



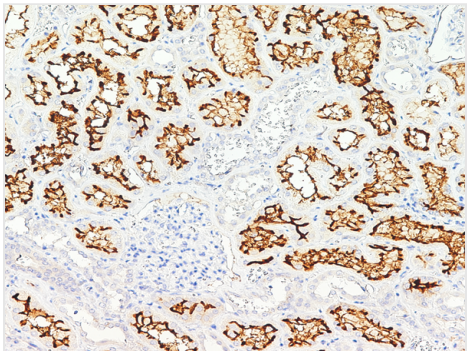
FCM/FACS (Flow Cytometry)

Flow cytometric analysis of Human ACE2 expression on ACE2-transfected 293T cells. Cells were stained with purified anti-Human Human ACE2, then a FITC-conjugated second step antibody. The fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of intact cells.



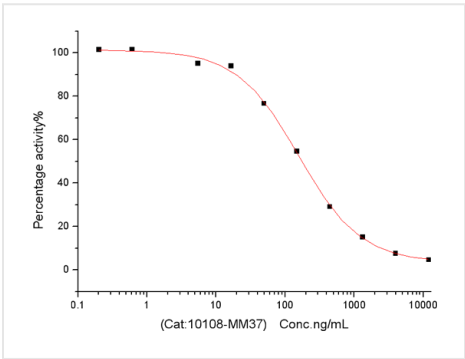
IHC (Immunohistochemistry)

Immunochemical staining of human ACE2 in human testis with mouse monoclonal antibody in 5 ug/ml, formalin-fixed paraffin embedded sections.



IHC (Immunohistochemistry)

Immunochemical staining of human ACE2 in human kidney with mouse monoclonal antibody in 5 ug/ml, formalin-fixed paraffin embedded sections.



ELISA

Serial dilutions of Anti-ACE2 Neutralizing Antibody was detected by SARS-CoV-2 (2019-nCoV) Inhibitor Screening ELISA Kit. The IC50 is typically 1.06 nM.

Conc. (µg/mL)	Inhibition%
100	99.35%
20	99.60%
4	82.25%
0.8	5.70%
0.16	-6.65%
0.032	0.39%
0.0064	0.43%
0.00128	17.86%

Application Data

The neutralization activity is Measured by microneutralization assay in vitro. The virus microneutralization (MN) test was performed on 293T-ACE2 cells infected with SARS-CoV-2 (2019-nCoV) Spike Pseudovirus under treatment of serial dilutions of neutralizing antibody. The infection was neutralized by increasing concentrations of Anti-SARS-CoV-2 Neutralizing Antibody. Rate of inhibition was determined by comparing the Relative Light Unit (RLU) of Luciferase reporter in different antibody concentrations. The IC50 is typically 2.031 ug/mL.

ADDITIONAL INFORMATION

Related Product Information for anti-ACE2 antibody	Background: Angiotensin-converting enzyme 2 (ACE2), a first homolog of ACE, regulates the renin angiotensin system (RAS) by counterbalancing ACE activity. Accumulating evidence in recent years has demonstrated a physiological and pathological role of ACE2 in the cardiovascular, renal and respiratory systems. ACE2 also has an important role in blood pressure control. This enzyme, an homolog of ACE, hydrolyzes angiotensin (Ang) I to produce Ang-(1-9), which is subsequently converted into Ang-(1-7) by a neutral endopeptidase and ACE. ACE2 releases Ang-(1-7) more efficiently than its catalysis of Ang-(1-9) by cleavage of Pro(7)-Phe(8) bound in Ang II. Thus, the major biologically active product of ACE2 is Ang-(1-7), which is considered to be a beneficial peptide of the RAS cascade in the cardiovascular system. A physiological role for ACE2 has been implicated in hypertension, cardiac function, heart function and diabetes, and as a receptor of the severe acute respiratory syndrome coronavirus. In the acute respiratory distress syndrome (ARDS), ACE, AngII, and AT1R promote the disease pathogenesis, whereas ACE2 and the AT2R protect from ARDS. Importantly, ACE2 has been identified as a key SARS-coronavirus receptor and plays a protective role in severe acute respiratory syndrome (SARS) pathogenesis. Furthermore, the recent explosion of research into the ACE2 homolog, collectrin, has revealed a new physiological function of ACE2 as an amino acid transporter, which explains the pathogenic role of gene mutations in Hartnup disorder. This review summarizes and discusses the recently unveiled roles for ACE2 in disease pathogenesis.
References	Koitka A, et al. (2008) Angiotensin converting enzyme 2 in the kidney. Clin Exp Pharmacol Physiol. 35(4): 420-5.Raizada MK, et al. (2007) ACE2: a new target for cardiovascular disease therapeutics. J Cardiovasc Pharmacol. 50(2): 112-9.Imai Y, et al. (2007) Angiotensin-converting enzyme 2 (ACE2) in disease pathogenesis. Circ J. 74(3): 405-10.Turner AJ, et al. (2004) ACE2: from vasopeptidase to SARS virus receptor. Trends Pharmacol Sci. 25(6): 291-4.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/monoclonal/ace2-antibody-clone-mm37h-flow-cytometry-immunohistochemistry-elisa/257500>