

10-10031: anti-ACE2, mAb (Clone: AC18F)

Clonality :	Monoclonal
Clone Name :	AC18F
Application :	ELISA, WB
Reactivity :	Human
Uniprot ID :	Q9BYF1
Alternative Name :	SARS Receptor; Angiotensin-converting Enzyme 2; ACEH; Metalloprotease MPROT15; SARS-CoV-2 Receptor
Isotype :	Mouse IgG1, k
Immunogen Information :	Recombinant human ACE2.

Description

Specificity : Recognizes human ACE2.

Angiotensin-converting enzyme2 (ACE2) is an ectoenzyme (carboxypeptidase) with an extracellular catalytic domain that predominantly localizes at the plasma membrane and is thereby able to hydrolyze circulating peptides. ACE2 has approximately 42% sequence identity with ACE, and its cytoplasmic and transmembrane domains show 48% homology to the protein collectrin that plays a critical role in the amino acid absorption of the kidney. ACE2 converts angiotensin I to angiotensin 1-9, a peptide of unknown function, and angiotensin II to angiotensin 1-7, a vasodilator. ACE2 is involved in the regulation of systemic blood pressure and has direct effects on cardiac functions. It is expressed predominantly in endothelial cells of the lung, gut, heart and kidney. ACE2 together with the protease TMPRSS2 acts as a functional receptor for SARS coronavirus as well as for the new highly pathogenic coronavirus, 2019-nCoV/SARS-CoV-2, which is cause for pneumonia COVID-19.

Product Info

Amount :	50 µg / 100 µg
Purification :	Protein G-affinity purified.
Content :	Liquid. 0.2µm-filtered solution in PBS, pH 7.4. Contains no preservatives. Concentration: 1mg/ml
Storage condition :	Short Term Storage : +4°C ; Long Term Storage -20°C ;After opening, prepare aliquots and store at -20°C. Avoid freeze/thaw cycles.

Application Note

ELISA: (direct or indirect: 1:2'000-1:10'000)

Flow Cytometry: (1:1'000)

Western blot: (1:2'000-1:10'000 using ECL. Suggested blocking and dilution buffer is PBST with 0.05% Tween 20 and 5% skim milk. Suggested incubation time is 1 hour at room temperature).

Optimal conditions should be determined individually for each application.

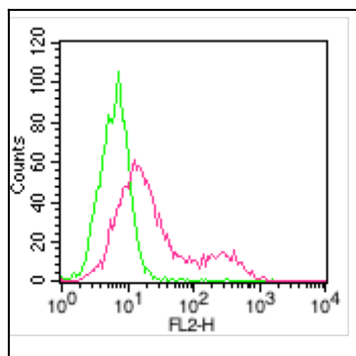


Figure 1: FACS: Cell Surface staining of human ACE2 on HepG2 cell line. Red: Human anti-ACE2 antibody (Clone:AC18F), 1ug/10⁶ cells were used. Green : Isotype control, mouse IgG1, 1ug/ 10⁶ cells was used as control. PE conjugated Goat anti-mouse IgG was used as secondary antibody.

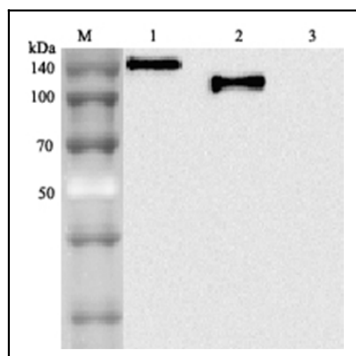


Figure 2: Western blot analysis using anti-ACE2 (human), mAb (AC18F) at 1: 2,000 dilution.; 1. hACE2 (Fc protein).; 2. hACE2 (Ecto domain) (FLAG-tagged).; 3. Other hGTR (Fc protein) (control).