APB886Hu01 100μg
Active Angiotensin I Converting Enzyme 2 (ACE2)
Organism Species: *Homo sapiens (Human)*
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

1st Edition (Apr, 2016)

[PROPERTIES]

Source: Prokaryotic expression.
Host: *E. coli*
Residues: Leu392~Ser740
Tags: N-terminal His-tag
Purity: >95%
Endotoxin Level: <1.0EU per 1μg (determined by the LAL method).
Buffer Formulation: 20mM Tris, 150mM NaCl, pH8.0, containing 0.05% sarcosyl and 5% trehalose.
Applications: Cell culture; Activity Assays.
(May be suitable for use in other assays to be determined by the end user.)
Predicted isoelectric point: 7.2
Predicted Molecular Mass: 44.1kDa
Accurate Molecular Mass: 44kDa as determined by SDS-PAGE reducing conditions.

[USAGE]

Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

[STORAGE AND STABILITY]

Storage: Avoid repeated freeze/thaw cycles.
Store at 2-8°C for one month.
Aliquot and store at -80°C for 12 months.

Stability Test: The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

[SEQUENCE]

LRNGANEGF
HEAVGEIMSL SAATPKHLKS IGLLSPDFQE DNETEINFLL KQALTIVGTL
PFTYMLEKWR WMVFKGEIPK DQWMKKWWEM KREIVGVVEP VPHDETYCDP
ASLFHVSNDY SFIRYYTRTL YQFQFQEALC QAAKHEGPLH KCDISNSTEA
GQKLFNMLRL GKSEPWTLAL ENVVGAKNMN VRPLLNYFEP LFTWLKDQNK
NSFVGWSTDW SPYADQSIKV RISLKSALGD KAYEWNDNEM YLFRSSVAYA
MRQYFLKVKN QMILFGEEDV RVANLKPRIS FNFFVTAPKN VSDIIPRTEV
EKAIRMSRSR INDAFRLNDN SLEFLGIQPT LGPPNQPPVS

[ACTIVITY]

Angiotensin-converting enzyme 2 (ACE2), as a transmembrane protein, serves as the main entry point into cells for some coronaviruses, including HCoV-NL63, SARS-CoV , and SARS-CoV-2 . More specifically, the binding of the spike S1 protein of SARS-CoV and SARS-CoV-2 to the enzymatic domain of ACE2 on the surface of cells results in endocytosis and translocation of both the virusand the enzyme into endosomes located within cells. Besides, recent studies show that spike (S) proteins of 2019-nCoV and SARS-CoV may use the same host cell receptor called angiotensin-converting enzyme 2 (ACE2) for entering into host cells, thus a binding ELISA assay was conducted to detect the interaction of recombinant human ACE2 and recombinant Spike glycoprotein(S1). Briefly, ACE2 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100μl were then transferred to S1-coated microtiter wells and incubated for 2h at 37℃. Wells were washed with PBST and incubated for 1h with anti-ACE2 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37℃. Finally, add 50μl stop solution to the wells and read at 450nm immediately. The binding activity of ACE2 and S1 was shown in Figure 1, and this effect was in a dose

dependent manner.

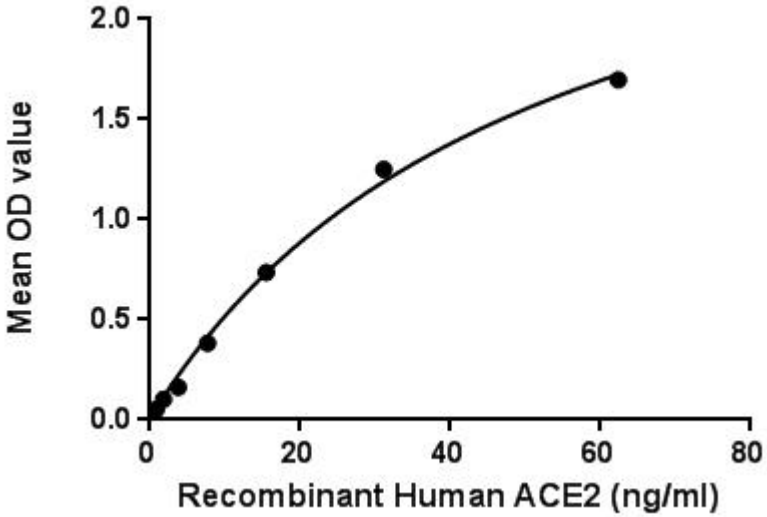

Figure 1. The binding activity of ACE2 with S1

[IDENTIFICATION]

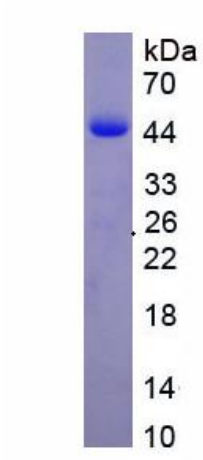

Figure 2. SDS-PAGE

Sample: Active recombinant ACE2, Human

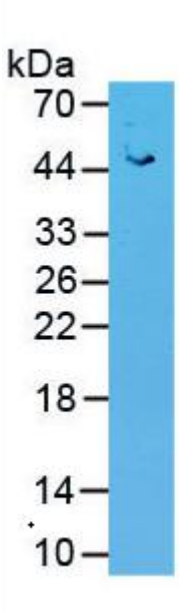

Figure 3. Western Blot

Sample: Recombinant ACE2, Human;

Antibody: Rabbit Anti- Human ACE2 Ab (PAB886Hu01)

[IMPORTANT NOTE]

The kit is designed for research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.