

Human ACE2 Stable Cell line-CHO

Stable Recombinant CHO cells

Catalog # CLA51C2-71C

Lot # S3450-5

Product Description

CHO cell line stably overexpressing native human angiotensin-converting enzyme 2 (ACE2) extracellular domain. The gene accession number is [NM_021804](#).

Applications

FACS analysis, cell-based ACE2 assays.

Formulation

Each vial contains 1×10^6 cells in 1 ml of FBS containing 8 % DMSO.

Culture Medium

DMEM + 5% FBS for adherent culture / HyClone HyCell for suspension culture.

Mycoplasma Testing

The test results indicate the absence of mycoplasma.

Viability

Cells recover as healthy logarithmically growing cells within 3 to 4 days post thawing. Viability measured to be $\geq 90\%$.

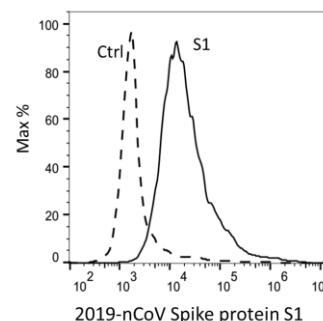
Scientific Background

The angiotensin converting enzyme 2 (ACE2) belongs to the angiotensin-converting enzyme family of dipeptidyl carboxydipeptidases. ACE2 cleaves the angiotensin I and angiotensin II to counterbalancing ACE activity in the regulation of renin angiotensin system (RAS). ACE2 also has the role in regulation of cardiovascular, renal and reproductive systems physiologically (1). In addition, ACE2 is a functional receptor for the spike glycoprotein (S) of SARS-CoV, HCoV-NL63, and SARS-CoV-2 (2), which causes the pandemic of the respiratory diseases (COVID-19) (3).

References

1. Imai Y, et al: Angiotensin-converting enzyme 2 (ACE2) in disease pathogenesis. *Circ J*. 2007, 74(3):405-10.
2. Lan J, et al: Crystal structure of the 2019-nCoV spike receptor-binding domain bound with the ACE2 receptor. *bioRxiv*. doi: <https://doi.org/10.1101/2020.02.19.956235>
3. Zhou P, et al: A pneumonia outbreak associated with a new coronavirus of probable bat origin. *Nature*. 2020, 579:270-89.

Activity



FACS assay showed 2019-nCoV Spike protein S1 can bind to ACE2 overexpressing cells. ACE2 overexpressing cells were stained with 2019-nCoV Spike protein S1, followed by anti-spike protein antibody (C19S1-61H) and fluorescence-conjugated secondary antibody.

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Vial Contents	1×10^6 cells/ml
Subculture routine	Subculture the cells every two to three days
Stability	1yr stored below -130°C from date of shipment
Storage & Shipping	For optimal storage, store product in liquid nitrogen vapor until ready to use. Product shipped on dry ice.