

## Human ACE2 293T Cell Line

Catalog No.	Amount	Lot Number
631289	1 ml	Specified on product label.

### Description

The Human ACE2 293T Cell Line is a transduced human embryonic kidney-derived cell line that expresses the human angiotensin I converting enzyme 2 (ACE2). ACE2 is a zinc-containing metalloenzyme located on the surface of endothelial and other cell types. This transmembrane protein converts angiotensin I to angiotensin 1–9, a 9-amino acid peptide with anti-hypertrophic effects in cardiomyocytes, and angiotensin II to angiotensin 1–7, which then acts as a beneficial vasodilator and anti-proliferation agent. Additionally, ACE2 is a functional receptor for some coronaviruses, including HCoV-NL63, SARS-CoV, and SARS-CoV-2.

### Package Contents

- 1 ml Human ACE2 293T Cell Line ( $2.0 \times 10^6$  cells/tube)

### Storage Conditions

- Store cells in liquid nitrogen ( $-196^{\circ}\text{C}$ ) or in a  $-150^{\circ}\text{C}$  freezer.

### Shelf Life

- 1 year from date of receipt under proper storage conditions.

### Storage Medium

- Cell Freezing Medium, DMSO 1x (Sigma-Aldrich, C6164).

### Shipping Conditions

- Dry ice ( $-70^{\circ}\text{C}$ )

### Product Documents

Documents for our products are available for download at [takarabio.com/manuals](https://takarabio.com/manuals)  
The following documents apply to this product:

- Human ACE2 293T Cell Line Protocol-at-a-Glance

### Cell Type Information

The Human ACE2 293T Cell Line is a human embryonic kidney (HEK) cell line transduced with a lentivirus that encodes for the expression of the human ACE2 receptor under a CMV promoter. The cell line was subcloned for high expression of ACE2 and high sensitivity for SARS-CoV-2 pseudovirus transduction.

### Recommended Cell Culture Medium

90% Dulbecco's Modified Eagle's Medium (DMEM) with high glucose (4.5 g/L), 4 mM L-glutamine, and sodium bicarbonate (Sigma-Aldrich, D5796); 10% Fetal Bovine Serum (FBS), and 1 mM sodium pyruvate (Sigma-Aldrich, S8636).

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## Additional Notes

We recommend that cultures be initiated as soon as possible after receipt. If cells cannot be thawed and cultured immediately upon receipt, the vial should be stored at temperatures below  $-79^{\circ}\text{C}$ , preferably in liquid nitrogen vapor. We recommend using collagen-coated plates or flasks both for efficient recovery of frozen stocks and further cell culturing. Culture vessels coated with compounds other than collagen may also provide suitable growth substrates for this cell line; however, only collagen-coated plates (e.g., Corning BioCoat Collagen I Cellware) have been tested at Takara Bio. Complete attachment of newly thawed HEK 293-based cultures may require up to 48 hr.

## References

1. Pear, W.S. *et al.* Production of high-titer helper-free retroviruses by transient transfection. *Proc. Natl. Acad. Sci. USA.* **90**, 8392–8396 (1993).

## Quality Control Data

### ACE2 expression levels

Expression levels of ACE2 receptor were determined by RT-qPCR using the *ACTB* housekeeping gene as an internal reference and having a  $\Delta\text{Ct}$  value  $>0.4$ .

### Mycoplasma contamination test

This lot of cells has been tested and found to be free of *Mycoplasma* contamination.

It is certified that this product meets the above specifications, as reviewed and approved by the Quality Department.

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### CATALOG NO.

631289

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