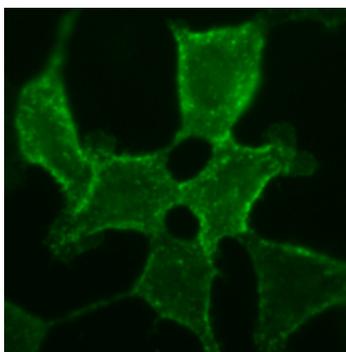


CELL LINES

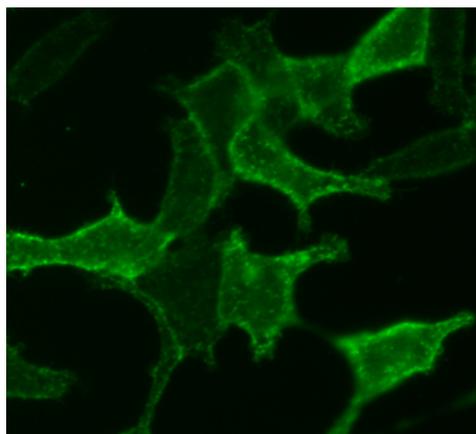
- ACE2 HEK293 CELL LINE -



Product Name:	ACE2 HEK293 cell line
Catalog Number:	P30902
Cell Line:	HEK293
Resistance:	Hygromycin
Format:	>3x10 ⁶ cells in Cryopreserved vials
Storage:	Liquid Nitrogen

ACE2 HEK293 cell line

The ACE2 HEK293 cell line has been developed by stable transfection with a human Angiotensin-converting enzyme 2 (hACE2) receptor expression plasmid. hACE2 HEK293 cell line provides consistent levels of expression of human ACE2 protein in cells surface.



This cell line is intended to be used as an “in vitro” model for research studies.

ACE2 receptor and COVID-19

ACE2 is the main host cell receptor of novel coronavirus from human airway epithelial cells named 2019-nCoV. ACE2 is the key receptor in the entry of virus into the cell to cause the final infection.

The coronaviruses use the spike glycoprotein on the envelope to bind to their cellular ACE2 receptors through their receptor binding domain (RBD).

The study of the interaction between the coronavirus and the ACE2 receptor plays a crucial role in the findings of possible therapeutic strategies to treat the COVID-19 disease.

Bibliography: Xu, H., Zhong, L., Deng, J. et al. High expression of ACE2 receptor of 2019-nCoV on the epithelial cells of oral mucosa. *Int J Oral Sci* 12, 8 (2020). <https://doi.org/10.1038/s41368-020-0074-x>

Lan, J., Ge, J., Yu, J. et al. Structure of the SARS-CoV-2 spike receptor-binding domain bound to the ACE2 receptor. *Nature* (2020). <https://doi.org/10.1038/s41586-020-2180-5>

🌐 Immunofluorescence analysis

The detection of ACE2 protein in the cells surface was carried out by immunofluorescence analysis with an ACE2 primary antibody and a FITC secondary antibody.

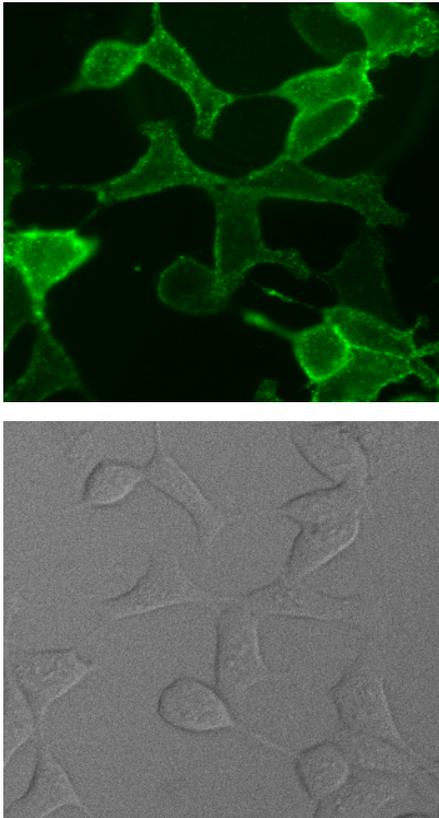


Figure 2. Immunofluorescence assay. The image in the upper panel shows the membrane localization of ACE2 in HEK293 cell line. The image in the lower panel shows bright field.

🌐 RT-PCR analysis

The presence of ACE2 mRNA was analyzed by RT-PCR.

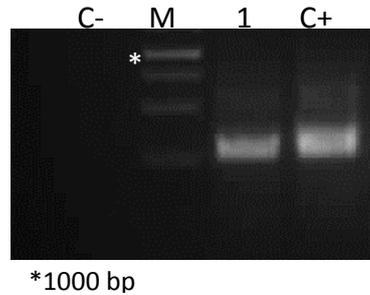


Figure 1. ACE2 RT-PCR analysis. (1) ACE2 HEK293 cell line. Positive Control (C+): ACE2 cDNA. Negative Control (C-): not transfected HEK293 cells.

🌐 Quality Control

All cells are performance assayed and test negative for mycoplasma, bacteria, yeast and fungi. Cell viability, morphology and proliferative capacity are measured after recovery from cryopreservation. Innoprot guarantees stable expression for many generations and provides support for cell culture and visualization.

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