



SZABO SCANDIC

Part of Europa Biosite

Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!



Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 



6042 Cornerstone Court W, Ste B
San Diego, CA 92121
Tel: 1.858.202.1401
Fax: 1.858.481.8694
Email: info@bpsbioscience.com

Data Sheet

ACE2 – HeLa Recombinant Cell Line

Catalog #79958

Description

Recombinant clonal stable HeLa cell line constitutively expressing full length human ACE2, Genbank #NM_021804.3). Surface expression of ACE2 was confirmed by flow cytometry.

Background

Human Angiotensin converting enzyme 2 (ACE2), also known as ACEH, is an integral membrane protein found in the outer space of cells in the lungs, arteries, heart, kidney, and intestines. ACE2 serves as the entry point into cells for some coronaviruses, including the SARS-CoV-2 virus that is responsible for the COVID-19 pandemic.

Application

This cell line is useful for ACE2 binding assays, flow cytometry, or for screening ACE2 antibodies.

Format

Each vial contains ~ 2 x 10⁶ cells in 1 ml of 10% DMSO in FBS.

Storage

Store in liquid nitrogen immediately upon receipt.

Mycoplasma Testing

This cell line has been screened using the MycoAlert™ Mycoplasma Detection Kit (Lonza, #LT07-118) to confirm the absence of Mycoplasma contamination.

Cell Culture

Thaw Medium 1 (BPS Bioscience #60187): MEM medium (Hyclone #SH30024.01) supplemented with 10% FBS, 1% non-essential amino acids (Hyclone #SH30238.01), 1 mM Na pyruvate (Hyclone #SH30239.01), 1% Penicillin/Streptomycin (Hyclone #SV30010.01).

Growth Medium 1N (BPS Bioscience #79801): Thaw Medium 1 (BPS Bioscience #60187) and 0.5 µg/ml of Puromycin (InvivoGen, #ant-pr-1).

Cells should be grown at 37°C with 5% CO₂ using Growth Medium 1N.

To thaw the cells, it is recommended to quickly thaw the frozen cells from liquid nitrogen in a 37°C water-bath, and transfer to a tube containing 10 ml of Thaw Medium 1 (no puromycin). Spin down cells, resuspend cells in pre-warmed Thaw Medium 1 (no puromycin), transfer resuspended cells to a T25 flask and culture in 37°C CO₂ incubator. At first passage switch to Growth Medium 1N (contains puromycin). Cells should be split before they reach complete confluence.

OUR PRODUCTS ARE FOR RESEARCH USE ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.

To place your order, please contact us by Phone **1.858.202.1401** Fax **1.858.481.8694**

Or you can Email us at: info@bpsbioscience.com

Please visit our website at: www.bpsbioscience.com



6042 Cornerstone Court W, Ste B
San Diego, CA 92121
Tel: 1.858.202.1401
Fax: 1.858.481.8694
Email: info@bpsbioscience.com

To passage the cells, rinse cells with phosphate buffered saline (PBS), detach cells from culture vessel with Trypsin/EDTA, add Growth Medium 1N and transfer to a tube. Spin down cells, resuspend cells and seed appropriate aliquots of cell suspension into new culture vessels. Subcultivation ratio: 1:5 to 1:10 weekly or twice a week.

To freeze down the cells, rinse cells with phosphate buffered saline (PBS), and detach cells from culture vessel with Trypsin/EDTA. Add Growth Medium 1N and transfer to a tube, spin down cells, and resuspend in freezing medium (10% DMSO + 90% FBS) at $\sim 2 \times 10^6$ cells/ml. Dispense 1 ml of cell aliquots into cryogenic vials. Place vials in an insulated container for slow cooling and store at -80°C overnight. Transfer to liquid nitrogen the next day for storage. It is recommended to expand the cells and freeze down more than 10 vials of cells for future use at early passage.

Sequence

MSSSSWLLLSLVAVTAAQSTIEEQAKTFLDKFNHEAEDLFYQSSLASWNYNTNITEENVQNMN
NAGDKWSAFLKEQSTLAQMYPLEIQNLTVKQLQLALQQNGSSVLSSEDKSKRLNTILNTMSTIY
STGKVCNPDNPQECLLLEPGLNEIMANSLDYNERLWAWESWRSEVKGQLRPLYEYVVLKNE
MARANHYEDYGDYWRGDYEVNGVDGYDYSRGLIEDVEHTFEEIKPLYEHLHAYVRAKLMNA
YPSYISPIGCLPAHLLGDMWGRFWTNLYSLTVPFGQKPNIDVTDAMVDQAWDAQRFKEAEKF
FVSVGLPNMTQGFWENSMLTDPGNVQKAVCHPTAWDLGKGDFRILMCTKVTMDDFLTAHHE
MGHIQYDMAYAAQPFLLRNGANEGFHEAVGEIMSLSAATPKHLKSIGLLSPDFQEDNETEINFL
LKQALTIVGTLPFTYMLEKWRWMVFKGEIPKDQWMKKWWEMKREIVGVVPEVPHDETYCDPA
SLFHVSNDYSFIRYYTRTYLQFQFQEQALCQAAKHEGPLHKCDISNSTEAGQKLFNMLRLGKSEP
WTLALENVVGAKNMNVRLNLYFEPLFTWLKQNKNSFVGWSTDWSPYADQSIKVRISLKSAL
GDKAYEWNENMYLFRSSVAYAMRQYFLKVKNQMILFGEEDVRVANLKPRI SFNFFVTAPKNV
SDIIPRTEVEKAIRMSR SRINDAFRLNDNSLEFLGIQPTLGPNNQPPVSIWLIVFGVVMGVIVVIV
ILIFTGIRDRKKNKARS GENPYASIDISKGENNPGFQNTDDVQTSF

Materials Required but Not Supplied

- HeLa growth medium or use
Thaw Medium 1 (BPS Bioscience #60187): MEM supplemented with 10% FBS, 1% non-essential amino acids (Hyclone #SH30238.01), 1 mM Na pyruvate (Hyclone #SH30239.01), 1% Penicillin/Streptomycin (Hyclone #SV30010.01).
- SARS-CoV-2 Spike Pseudotyped Lentivirus (Luc Reporter) (BPS Bioscience, #79942)
- 96-well tissue culture treated, white clear-bottom assay plate (Corning, #3610)
- ONE-Step™ luciferase assay system (BPS Bioscience, #60690)

Assay Protocol

The following protocol is a general guideline for transducing ACE2-HeLa cells using SARS-CoV-2 Spike pseudotyped lentivirus (Luciferase reporter). The optimal transduction conditions (e.g. MOI, concentration of polybrene, time of assay development) should be optimized according to the cell type and the assay requirements.

OUR PRODUCTS ARE FOR RESEARCH USE ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.

To place your order, please contact us by Phone **1.858.202.1401** Fax **1.858.481.8694**

Or you can Email us at: info@bpsbioscience.com

Please visit our website at: www.bpsbioscience.com

1. Day 1: Harvest ACE2-HeLa cells from culture and seed cells at a density of 5,000-10,000 cells per well into white opaque 96-well microplate in 50 μ l of Thaw Medium 1. Incubate cells at 37°C with 5% CO₂ overnight.
2. Day 2: Add 5 μ l of SARS-CoV-2 Spike Pseudotyped Lentivirus (Luc Reporter) into each well. Add polybrene to each well at a final concentration of 5 μ g/ml. Gently swirl the plate to mix. Incubate the plate at 37°C with 5% CO₂ for 18-24 hours.

Alternatively, seeding cells and the transduction can be performed at the same day.

3. Day 3: Remove the medium containing the lentivirus from the wells. Add 50 μ l of fresh Thaw Medium 1 to each well.

If neither the polybrene nor the lentivirus adversely affects the target cells, it is not necessary to change the medium on Day 3. The target cells can be incubated with the virus for 48-72 hours before changing medium.

3. Day 4-5, approximately 48-72 hours after transduction, prepare the ONE-Step™ Luciferase reagent per recommended protocol. Add 50 μ l of ONE-Step™ Luciferase Assay reagent per well. Incubate at room temperature for ~15 to 30 minutes and measure luminescence using a luminometer. The transduction efficacy was determined by measuring the luciferase activity.

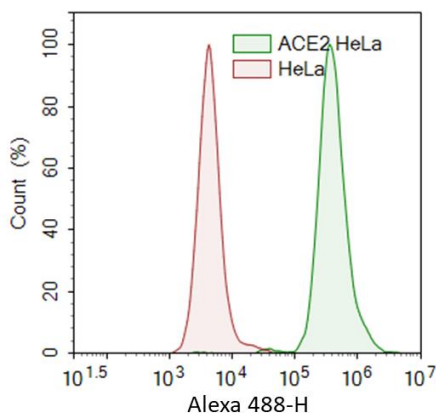


Figure 1. Expression of ACE2 validated by flow cytometry. ACE2-HeLa cells (green) or parental HeLa cells (red) were stained with anti-human ACE2 polyclonal goat IgG primary antibody (R&D Systems #AF933) and Alexa Fluor 488-conjugated rabbit anti-goat IgG secondary antibody (Thermo Fisher #A-21222). The ACE2 expression was analyzed by FACS.

OUR PRODUCTS ARE FOR RESEARCH USE ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.

To place your order, please contact us by Phone **1.858.202.1401** Fax **1.858.481.8694**

Or you can Email us at: info@bpsbioscience.com

Please visit our website at: www.bpsbioscience.com

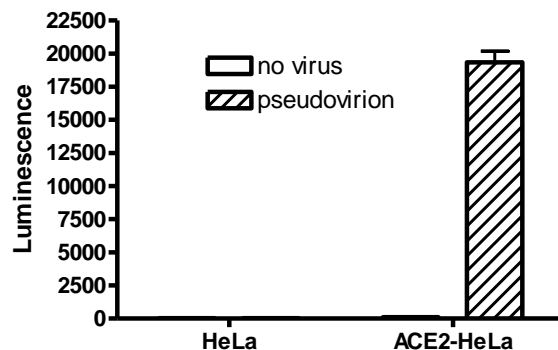


Figure 2. Transduction of ACE2-HeLa Cells using SARS-CoV-2 Spike Pseudotyped Lentivirus. Approximately 10,000 cells/well of ACE2-HeLa cells or HeLa parental cells were transduced with 5 µl/well of SARS-CoV-2-Spike pseudotyped lentivirus (Luc reporter) (BPS Bioscience #79942). After 18 hours of transduction, the medium was changed to fresh HeLa growth medium (Thaw Medium 1). After 48 hours of transduction, ONE-Step Luciferase reagent (BPS Bioscience, #60690) was added to cells to measure the luciferase activity. The SARS-CoV-2 Spike pseudotyped lentivirus transduced ACE2-HeLa cells with much greater efficiency compared with HeLa parental cells, indicating the transduction is dependent upon ACE2 expression.

License Disclosure: Purchase of this cell line grants you with a 10-year license to use this cell line in your immediate laboratory, for research use only. This license does not permit you to share, distribute, sell, sublicense, or otherwise make the cell line available for use to other laboratories, departments, research institutions, hospitals, universities, or biotech companies. The license does not permit the use of this cell line in humans or for therapeutic or drug use. The license does not permit modification of the cell line in any way. Inappropriate use or distribution of this cell line will result in revocation of the license and result in an immediate cease of sales and distribution of BPS products to your laboratory. BPS does not warrant the suitability of the cell line for any particular use, and does not accept any liability in connection with the handling or use of the cell line. Modifications of this cell line, transfer to another facility, or commercial use of the cells may require a separate license and additional fees; contact sales@bpsbioscience.com for details. Publications using this cell line should reference BPS Bioscience, Inc., San Diego.

Related Products

Product	Cat. #	Size
ACE2 CHO Recombinant Cell Line	79959	2 vials
ACE2 HEK293 Recombinant Cell Line	79951	2 vials
ACE2 Lentivirus	79944	2 vials
SARS-CoV-2 Spike Pseudotyped Lentivirus (Luciferase Reporter)	79942	500 µl x2
Bald Lentiviral Pseudovirion (Luciferase Reporter)	79943	500 µl x2
ACE2, His-tag	11003-2	100 µg

OUR PRODUCTS ARE FOR RESEARCH USE ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.

To place your order, please contact us by Phone **1.858.202.1401** Fax **1.858.481.8694**

Or you can Email us at: info@bpsbioscience.com

Please visit our website at: www.bpsbioscience.com