



6042 Cornerstone Court W, Ste B  
San Diego, CA 92121  
**Tel:** 1.858.202.1401  
**Fax:** 1.858.481.8694  
**Email:** [info@bpsbioscience.com](mailto:info@bpsbioscience.com)

**Data Sheet**  
***ACE2 Lentivirus***  
**Catalog #: 79944**

**Product Description**

Human Angiotensin converting enzyme 2 (ACE2), also known as ACEH, is an integral membrane protein found on the surface of cells in the lungs, arteries, heart, kidney, and intestines. ACE2 serves as the entry point into cells for some coronaviruses, including the two strains that caused outbreaks of Severe acute respiratory syndrome (SARS-CoV) and coronavirus disease 2019 (COVID-19) (SARS-CoV-2).

The ACE2 Lentivirus are replication incompetent, HIV-based, VSV-G pseudotyped lentiviral particles that are ready to be transduced into almost all types of mammalian cells, including primary and non-dividing cells. The particles contain an ACE2 gene (NM\_021804.3) driven by an EF1a promoter (Figure 1).

**Application**

1. Transient expression of ACE2 in target cells.
2. Generation of a stable cell line expressing ACE2 with Puromycin selection.

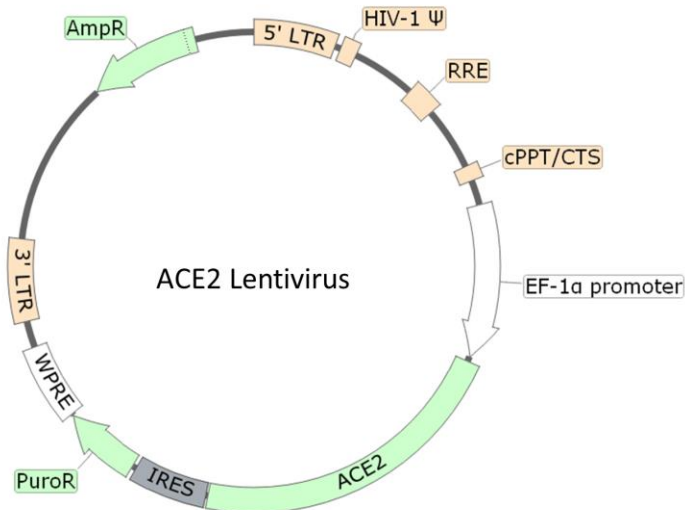
**Formulation**

The lentiviruses were produced from HEK293T cells in medium containing 90% DMEM + 10% FBS.

**Titer**

Two vials (500  $\mu$ l x 2) of lentivirus at a titer  $\geq 1 \times 10^7$  TU/ml. The titer will vary with each lot; the exact value is provided with each shipment.

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](mailto:info@bpsbioscience.com)  
Please visit our website at: [www.bpsbioscience.com](http://www.bpsbioscience.com)



**Figure 1. Schematic of the lenti-vector used to generate the ACE2 lentivirus**

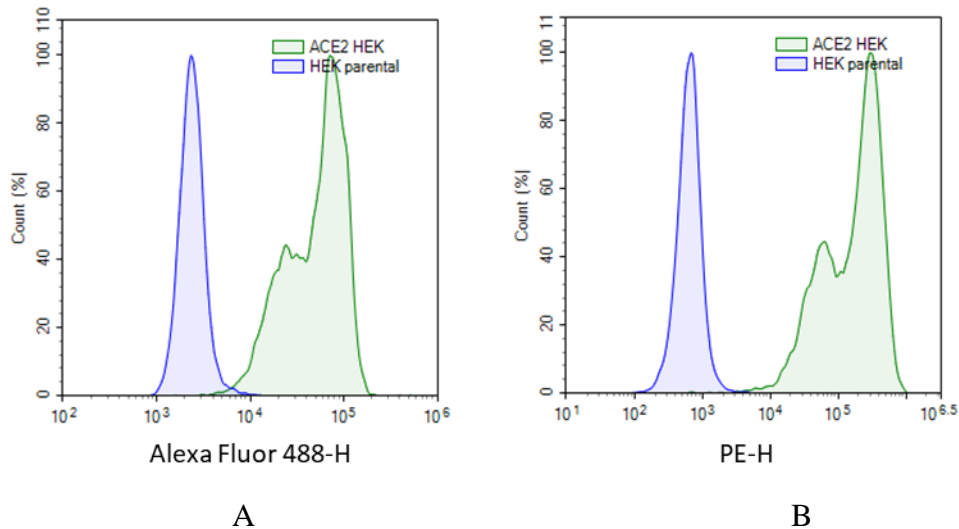
### Storage

Lentiviruses are shipped with dry ice. For long term storage, it is recommended to store the virus at -80°C. Avoid repeated freeze-thaw cycles. Titers can drop significantly with each freeze-thaw cycle.

### Biosafety

None of the HIV genes (gag, pol, rev) will be expressed in the transduced cells, as they are expressed from packaging plasmids lacking the packing signal. Although the pseudotyped lentiviruses are replication-incompetent, they require the use of a Biosafety Level 2 facility. BPS recommends following all local federal, state, and institutional regulations and using all appropriate safety precautions.

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](mailto:info@bpsbioscience.com)  
Please visit our website at: [www.bpsbioscience.com](http://www.bpsbioscience.com)



**Figure 2. The expression of ACE2 in HEK293 cells transduced with ACE2 lentivirus.**

**A.** Appropriate 500,000 cells/well (6-well culture plate) were transduced with 5,000,000 TU/well ACE2 lentivirus in the presence of 5 µg/mL of polybrene. After 52 hours of transduction, the transduced cells were stained by 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. Blue, HEK293 parental cells; Green, HEK293 cells transduced with ACE2 lentivirus.

**B.** Appropriate 500,000 cells/well (6-well culture plate) were transduced with 5,000,000 TU/well ACE2 lentivirus in the presence of 5 µg/mL of polybrene. After 52 hours of transduction, the transduced cells were stained by Biotinylated Spike S1 (BPS Bioscience #100679) and PE-conjugated Streptavidin (Biolegend #405204). The ACE2 expression was analyzed by FACS. +Blue, HEK293 parental cells; Green, HEK293 cells transduced with ACE2 lentivirus.

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](mailto:info@bpsbioscience.com)

Please visit our website at: [www.bpsbioscience.com](http://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](mailto:info@bpsbioscience.com)

## Related Products

<b><u>Product</u></b>	<b><u>Cat. #</u></b>	<b><u>Size</u></b>
Spike S1, Fc fusion, Avi-tag, Biotin-Labeled	100679	20 µg, 50 µg
Spike S1, Fc fusion, Avi-tag	100678-1	100 µg
NFκB Luciferase Reporter Lentivirus	79564	500 µl x2
CRE Luciferase Reporter Lentivirus	79580	500 µl x2
NFAT Luciferase Reporter Lentivirus	79579	500 µl x2
STAT3 Luciferase Reporter Lentivirus	79744	500 µl x2
STAT5 Luciferase Reporter Lentivirus	79745	500 µl x2
TCF/LEF Luciferase Reporter Lentivirus	79787	500 µl x2
ISRE Luciferase Reporter Lentivirus	79824	500 µl x2
IL-2 Promoter Luciferase Reporter Lentivirus	79825	500 µl x2
IL-8 Promoter Luciferase Reporter Lentivirus	79827	500 µl x2
AP-1 Luciferase Reporter Lentivirus	79823	500 µl x2
SBE Luciferase Reporter Lentivirus	79806	500 µl x2
TEAD Luciferase Reporter Lentivirus	79833	500 µl x2
ARE Luciferase Reporter Lentivirus	79869	500 µl x2
Negative Control Lentivirus	79578	500 µl x2
Renilla Luciferase (Rluc) Lentivirus	79565	500 µl x2
Firefly Luciferase (Fluc) Lentivirus (G418)	79692-G	500 µl x2
Firefly Luciferase (Fluc) Lentivirus (Hygromycin)	79692-H	500 µl x2
Firefly Luciferase (Fluc) Lentivirus (Puromycin)	79692-P	500 µl x2

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](mailto:info@bpsbioscience.com)

Please visit our website at: [www.bpsbioscience.com](http://www.bpsbioscience.com)