



# SZABO SCANDIC

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## Produktinformation



Forschungsprodukte & Biochemikalien



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Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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### Description

The CDH17 Lentivirus are replication incompetent, HIV-based, VSV-G pseudotyped lentiviral particles ready to transduce almost all types of mammalian cells, including primary and non-dividing cells. These viruses transduce cells with human CDH17 (cadherin 17) (NM\_004063.4) driven by a CMV promoter. The lentiviruses also transduce a puromycin selection marker (Figure 1).

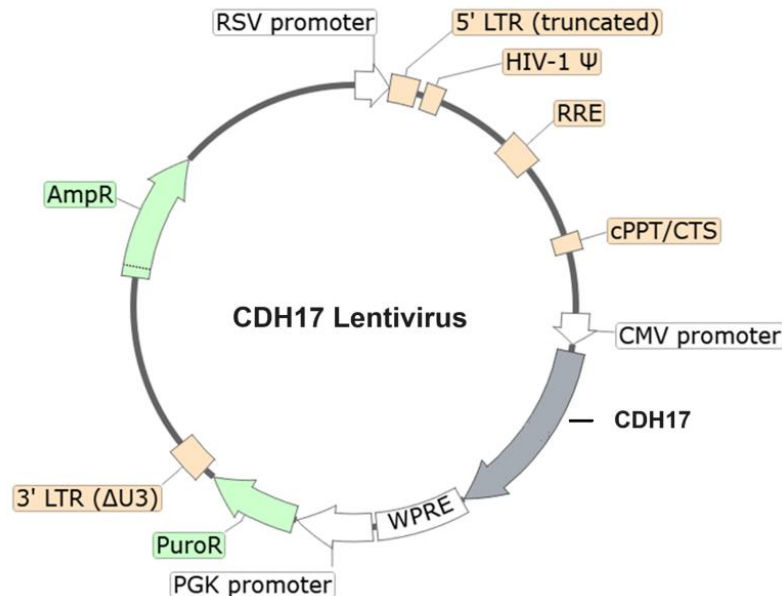


Figure 1. Schematic of the lenti-vector used to generate human CDH17 Lentivirus.

### Background

CHD17 (cadherin 17), also known as LI (liver-intestine)-cadherin is a unique member of the cadherin superfamily of proteins, as it has seven instead of the five typical cadherin domains. It is a calcium-dependent membrane-associated glycoprotein normally expressed on epithelial cells of the small intestine and colon, where it regulates intercellular adhesion. Upregulation of this protein is found in gastric cancer, colorectal and pancreatic cancer, amongst others. CHD17 has become a therapeutic target of interest, with studies using monoclonal antibodies, ADC (antibody drug conjugates) and CAR-T cells resulting in promising outcomes. More recently nanobodies, with their smaller size and higher potential to penetrate tumors, have also been developed. A bispecific T cell engager, ARB202, has also shown great promise *in vitro*. CHD17 is thus a target with great potential and future studies will continue to open new avenues of treatment around it.

### Application(s)

- Expression of human CDH17 in cells of interest.
- Generate CHD17-expressing cell pools or stable cell lines following puromycin selection.

### Formulation

The lentivirus particles were produced in HEK293T cells in medium containing 90% DMEM + 10% FBS. Virus particles can be packaged in custom formulations by special request, for an additional fee.

### Titer

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

### Storage



Lentiviruses are shipped with dry ice. For long-term storage, it is recommended to store the lentiviruses at  $-80^{\circ}\text{C}$  for up to 12 months from date of receipt. Avoid repeated freeze-thaw cycles. Titers can drop significantly with each freeze-thaw cycle.

### Biosafety

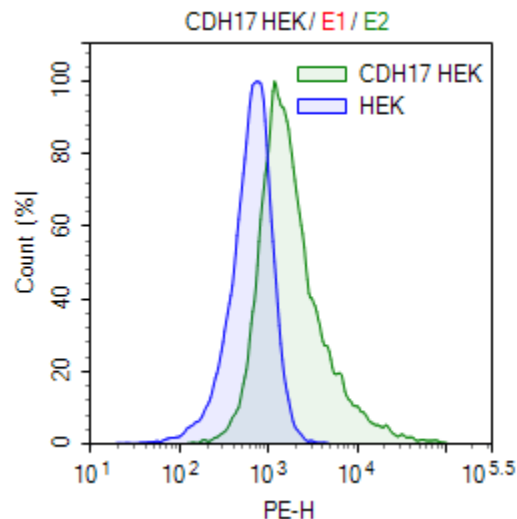


The lentiviruses are produced with a SIN (self-inactivation) lentivector which ensures self-inactivation of the lentiviral construct after transduction and after integration into the genomic DNA of the target cells. None of the HIV genes (*gag*, *pol*, *rev*) will be expressed in the transduced cells, as they are expressed from packaging plasmids lacking the packing signal and are not present in the lentivirus particle. Although the pseudotyped lentiviruses are replication-incompetent, they require the use of a Biosafety Level 2 facility. BPS Bioscience recommends following all local federal, state, and institutional regulations and using all appropriate safety precautions.

### Notes

To generate a CDH17 stable cell line, remove the growth medium 48 hours after transduction and replace it with fresh growth medium containing the appropriate amount of puromycin ((as pre-determined from a killing curve, <https://bpsbioscience.com/kill-curve-protocol>), for antibiotic selection of transduced cells followed by clonal selection.

### Figures and Validation Data



*Figure 2. Expression of human CDH17 in HEK cells transduced with human CDH17 Lentivirus.*

Approximately 100,000 HEK293 cells were transduced with 1,000,000 TU of CDH17 Lentivirus. 48 hours post-transduction, the cells were stained with Cadherin-17 Antibody (CDH17/2618) [PE] (Novus Biologicals# NBP2-79857PE) and analyzed by flow cytometry. Blue, parental HEK293 cells; Green, HEK293 cells transduced with CDH17 Lentivirus. Y-axis represents the % cell number. X-axis indicates PE intensity.

**Sequence**

Human CDH17 sequence (NM\_004063.4)

MILQAHLHSLCLLMLYLATGYGQEGKFSGPLKPMTFSIYEGQEPSQIIFQKANPPAVTFELTGETDNIFVIEREGLLYNRALDRET  
 RSTHNLQVAALDANGIIVEGPVPITIKVKDINDNRPTFLQSKYEGSVRQNSRPGKPLYVNATDLDDPATPNGQLYYQIVIQLPMI  
 NNVMYFQINNKTGAISLTREGSQELNPAKNPSYNLVISVKDMGGQSENSFSDTTSVDIIVTENIWKAPKPVEMVENSTDPHPKIT  
 QVRWNDPGAQYSLVDKEKLPRFPFSIDQEGDIYVTQPLDREEKDAYVFYAVAKDEYGKPLSYPLEIHVKVKDINDNPPTCPSPTV  
 FEVQENERLGNISGTLTAHDRDEENTANSFLNYRIVEQTPKLPMDGLFLIQTYAGMLQLAKQSLKKQDTPQYNLTIEVSDKDFKL  
 CFVQINVIDINDQIPIFEKSDYGNLTLAEDTNIGSTILTIQATDADEPFTGSSKILYHIIKGDSEGR LGVDTDPHTNTGYVIIKKPLDFET  
 AAVSNIVFKAENPEPLVFGVKYNASSFAKFTLIVTDVNEAPQFSQHVFQAKVSEDVAIGTKVGNVTAKDPEGLDISYSLRGDTRG  
 WLKIDHVTGEIFSVAPLDREAGSPYRVQVATEVGGSSLSVSEFHLILMDVNDNPPRLAKDYTG LFFCHPLSAPGSLIFEATDDD  
 QHLFRGPHTFSLGSGSLQNDWEVSKINGTHARLSTRHTEFEEREYVVLIRINDGGRPPLEGIVSLPVTFCSCVEGSCFRPAGHQTG  
 IPTVGMVAVGILLTLLVIGIILAVVFIRIKKDKGKDNVESAAQASEVKPLRS

**References**Ma J., *et al.*, 2022 *Biomater Res* 26:24.Wong D., *et al.*, 2021 *Pancreatic Cancer* 39 (3): 405.**Troubleshooting Guide**

Visit [bpsbioscience.com/lentivirus-faq](https://bpsbioscience.com/lentivirus-faq) for detailed troubleshooting instructions. For further questions, please email [support@bpsbioscience.com](mailto:support@bpsbioscience.com).

**Related Products**

<i>Products</i>	<i>Catalog #</i>	<i>Size</i>
CDH6 HEK293 Cell Line	82540	2 vials

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