

Produktinformation



Forschungsprodukte & Biochemikalien
Zellkultur & Verbrauchsmaterial
Diagnostik & molekulare Diagnostik
Laborgeräte & Service

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Zuschläge

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Kinase (Human) CRISPR/Cas9 Lentivirus

Description

The Kinase CRISPR/Cas9 lentivirus is designed to target a specific kinase of interest for knockout. The replicationincompetent, HIV-based, VSV-G pseudotyped lentiviral particles are ready to infect almost all types of mammalian cells, including primary and non-dividing cells. The SIN lentiviral backbone contains the Cas9 gene (*Streptococcus pyogenes* CRISPR associated protein 9) driven by an EF1a promoter, an sgRNA driven by a U6 promoter, and a puromycin selection marker. Each vial of lentivirus consists of a mixture of lentiviral particles targeting 5 different sgRNAs per gene.

The lentivirus integrates randomly into the cellular genome to express both Cas9 and the sgRNAs. Because it contains Cas9, the lentivirus can be used in any target cell regardless of whether the cells already express Cas9. Puromycin selection ensures high expression of both Cas9 and the sgRNAs. Knockout efficiencies will depend on the cell type and the gene of interest. Stable CRISPR-Cas9 knockout cell lines can also be generated following limiting dilution.



Figure 1: Schematic of the lentivector used to generate each kinase CRISPR/Cas9 Lentivirus.

Applications

- 1. Transient knockout of the kinase of interest in a cell pool
- 2. Generation of a stable knockout cell line following puromycin selection and limiting dilution

Formulation

The lentivirus particles are produced from HEK293T cells. They are supplied in cell culture medium containing 90% DMEM + 10% FBS.

Titer

Two vials (200 μ l x 2) of lentivirus at a titer $\ge 1 \times 10^7$ TU/ml. The titer varies with each lot and is provided with each shipment.



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Storage



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

Biosafety

The lentiviruses are produced with the 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 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.

Troubleshooting Guide

Visit bpsbioscience.com/lentivirus-faq. For all further questions, please email support@bpsbioscience.com.

Notes

The CRISPR/CAS9 technology is covered under numerous patents, including U.S. Patent Nos. 8,697,359 and 8,771,945, as well as corresponding foreign patents applications, and patent rights.

Related Products

Products	Catalog #	Size
CRISPR Kinase Knockout Lentivirus Library (Array)	78487	1 Array
Custom panels	Custom order	various

Custom Panels

Build your own Kinase Knockout Lentivirus Panel directly on our website. Our customer service will provide you a quote for any build. Visit webpage.



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