



Firefly Luciferase Lentifect™ Purified Lentiviral Particles • Cat No. LPP-FLUC-Lv105-025, LPP-FLUC-Lv105-100

Ready-to-use purified lentiviral particles for the transduction of a variety of mammalian cells including difficult-to-transfect, primary, stem and non-dividing cells as well as in vivo use for transgenic animals.

Description

GeneCopoeia Lentifect™ Purified Lentiviral Particles are produced from a standardized protocol using highly purified plasmid DNA and the proprietary reagents, EndoFectin™ Lenti (for transfection) and TiterBoost™ solution. The protocol uses a third generation self-inactivating packaging system meeting BioSafety Level 2 requirements.

The Lentifect particles include a CMV promoter for efficient expression of non-tagged, firefly luciferase in target cells and use a **puromycin resistance marker** for selection of stably transduced cells.

Contents and storage

Provided as 1 vial of 25 µl or 4 vials of 25 µl of purified firefly luciferase lentiviral particles with titers of $\sim 1 \times 10^8$ TU/ml.

Lentifect particles are shipped on dry ice and **must be stored at -80°C immediately upon receipt**. Avoid repeated freeze-thaw cycles as this will reduce titers.

Quality control

The lentiviral expression construct was validated by full-length sequencing, restriction enzyme digestion and PCR-size validation using gene-specific and vector-specific primers. Product is confirmed free of bacteria, fungi and common *Mycoplasma* contamination.

Viral titer

The transduction unit (TU or IFU) of the lentiviral particles was estimated using the formula- $1\text{TU}=100$ copies of viral genomic RNA. The physical copy numbers of the viral genomic RNA was determined using qRT-PCR. The customer should test the transduction at $\text{MOI}=0.3, 1, 3, 5, 10$ for their specific cell lines in order to get the best transduction efficiency.

Overview of production

The firefly luciferase OmicsLink™ ORF lentiviral expression plasmid (GeneCopoeia Cat. No. EX-hLUC-Lv105) was constructed using GeneCopoeia proprietary RecJoin™ technology. This plasmid was co-transfected into 293Ta cells (GeneCopoeia Cat. No. CLV-PK-01) with the Lenti-Pac HIV packaging mix (GeneCopoeia Cat. No. HPK-LvTR-20). Lentivirus-containing supernatants were harvested 48 hours after transfection. The virus was further purified, concentrated and stored at -80°C in aliquots.

User manual

Please contact GeneCopoeia for a copy or download at:
http://genecopoeia.com/product/lentiviral/pdf/packageing_kit_manual.pdf

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