



Data Sheet • Firefly Luciferase Lentifect™ Lentiviral Particles •

Cat Nos. LP-hLUC-LV206-0200, LP-hLUC-LV206-0205

Ready-to-use lentiviral particles for the transduction of a variety of mammalian cells including difficult-to-transfect, primary, stem and non-dividing cells.

Description

Gene:	Firefly luciferase
Promoter:	CMV
Tag:	None
Reporter:	mCherry
Resistance marker:	Puromycin resistance gene (<i>Pac</i>)
Additional note:	Pac and mCherry gene are co-expressed

Contents and storage

Provided as 1 vial of 200 µl or 5 vials of 200 µl of lentiviral particles with titers of $\sim 5 \times 10^8$ copies/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.

Viral titer

Lentivirus products were titrated using qRT-PCR, which determines the physical copy numbers of viral genomic RNA. We suggest that the customer estimate the transduction unit (TU or IFU) for the specific host cells based on the following formula before transduction:

$\text{TU} = \text{Titer (physical copy number)} / 100$.

The customer should test the transduction at MOI=0.3, 1, 3, 5, 10 using TU for the best transduction efficiency.

Overview of production

The lentiviral particles were generated by following a standardized protocol using highly purified plasmids and EndoFectin-Lenti™ and TiterBoost™ reagents.

The OmicsLink™ ORF lentiviral expression plasmid (GeneCopoeia Cat. No. EX-hLUC-LV206) 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 particles were purified and stored at -80°C in aliquots.

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.

User manual

Please contact GeneCopoeia for a copy or download at:

http://genecopoeia.com/product/lentiviral/pdf/packaging_kit_manual.pdf

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