

**EF1 $\alpha$ -hTERT (Hygro) Lentifect™ Purified Lentiviral Particles**  
**Cat No. LPP-Q0450-Lv115-100-C**

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**

GeneCopoeia Lentifect™ Lentiviral Particles are produced from a standardized protocol using 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 an EF1 $\alpha$  promoter for efficient expression of non-tagged, human TERT protein in target cells and use a hygromycin resistance marker for selection of stably transduced cells.

**Contents and storage**

Provided as 4 vials of 25  $\mu$ l of purified hTERT lentiviral particles with titers of  $\sim 1 \times 10^8$  TU/ml.

Lentifect particles are shipped on dry ice and must be stored at  $-80^\circ\text{C}$  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 MOI=0.3, 1, 3, 5, 10 for their specific cell lines in order to get the best transduction efficiency.

**Overview of production**

The hTERT OmicsLink™ ORF lentiviral expression plasmid (GeneCopoeia Cat. No. EX-hTERT-Lv115) was constructed using GeneCopoeia proprietary RecJoin™ technology. This plasmid was co-transfected into 293Ta cells (GeneCopoeia Cat. No. LT008) with the Lenti-Pac HIV Packaging Mix (GeneCopoeia Cat. No. LT001-01). Lentivirus-containing supernatants were harvested 48 hours after transfection and stored at  $-80^\circ\text{C}$ .

**User manual**

Please contact GeneCopoeia for a copy or download at:

[http://genecopoeia.com/product/lentiviral/pdf/packaging\\_kit\\_manual.pdf](http://genecopoeia.com/product/lentiviral/pdf/packaging_kit_manual.pdf)

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