Lentiviral Packaging Plasmids and LentiPrep™ Reagent Set

CELLECTA

Cellecta's Ready-to-Use **Lentiviral Packaging Plasmid Mix** allows you to produce high-titer VSV-G pseudotyped lentiviral particles. The ready-to-use Packaging Plasmid Mix, co-transfected with Cellecta lentiviral shRNA, sgRNA, Cas9, gene-expression, barcode, or reporter construct, provides all the necessary structural, regulatory, and replication proteins required to efficiently produce pseudotyped packaged lentiviral expression constructs for high-efficiency transduction.

Order the **LentiPrep™ Reagent Bundle** to get a complete set of validated reagents that allows you to package, purify, and transduce any of Cellecta's lentiviral vectors:

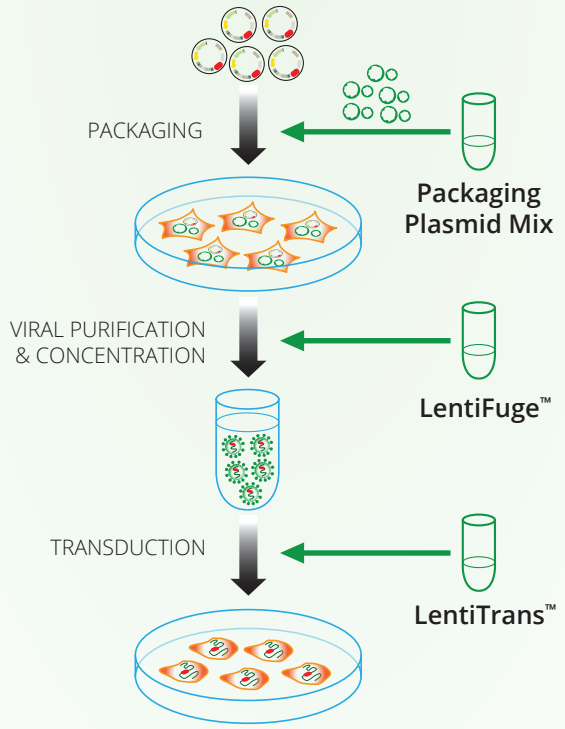
1. Ready-to-use Lentiviral Packaging Plasmid Mix
2. LentiFuge™ Viral Concentration Reagent
3. LentiTrans™ Transduction Reagent
4. Control plasmid with either GFP or RFP to test packaging and transduction efficiency

Cellecta's LentiPrep™ Reagent Set includes what you need to get started. You get ready-to-use reagents for lentiviral packaging, concentration, and transduction, together with an additional lentiviral control to optimize protocols for your cells.

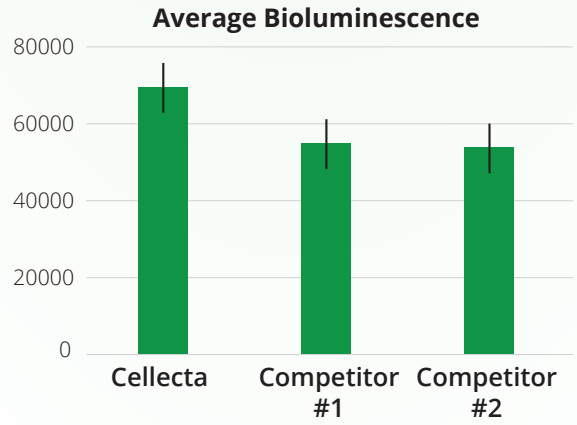
The price of the bundle is more economical that purchasing each reagent separately, and a lentiviral control (with GFP or RFP) is included at no additional cost.

Ordering Information

Catalog #	Description	Quantity
CPCP-K2A	Ready-to-use Lentiviral Packaging Plasmid Mix	250 µg, 0.5 µg/µl
LTSET-R	LentiPrep™ Lentiviral Packaging/Transduction Reagent Set with RFP control	
LTSET-G	LentiPrep™ Lentiviral Packaging/Transduction Reagent Set with GFP control	



Cellecta's Lentiviral Packaging Mix Outperforms Competitors



The same lentiviral vector that expresses firefly luciferase was used in all three packaging protocols. Each lentivector was packaged according to the manufacturer's protocol in 293T cells. Collected supernatant was directly used to transduce 293T cells for 48 hours. Firefly luciferase activity was assayed using a standard protocol and compared to untransduced cells. The results show an improvement with Cellecta's mix over the mixes from both competitors.

LentiFuge™ Viral Concentration Reagent

CELLECTA

Cellecta **LentiFuge™ Viral Concentration Reagent** concentrates and purifies pseudoviral particles with standard speed centrifugation. The protocol for LentiFuge is only 2 hours long. The first hour is an incubation period with LentiFuge and the viral supernatant. The second hour is a standard centrifugation step in a Beckman JA-14, JA-10, or similar rotor. After these two short steps, the purified virus is simply resuspended at a high concentration in the volume of choice and either used immediately or aliquoted and frozen. The amount of LentiFuge reagent provided (1 ml) is sufficient to concentrate and purify virus from 1 liter of packaging cell supernatant.

Purify and Concentrate Lentivirus

- Easy, 2-hour, standard speed centrifuge protocol — no high-speed centrifugation required
- Yields highly purified viral particles
- Over 100-fold concentration of viral particles

Easy Two-Step Protocol

- Add 1000X LentiFuge reagent to viral supernatant
  - (1) Incubate for 1 hour
  - (2) Centrifuge in a Beckman JA-14 or similar rotor for 1 hour
- Resuspend and transduce cells

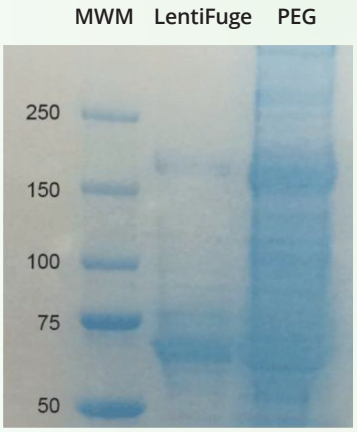


Figure 1: Virus precipitated with LentiFuge contains significantly less culture medium serum contaminants than samples concentrated using polyethylene glycol (PEG)-based reagents, and can therefore be resuspended easily in a much smaller volume. The MWM is present to orient the gel.

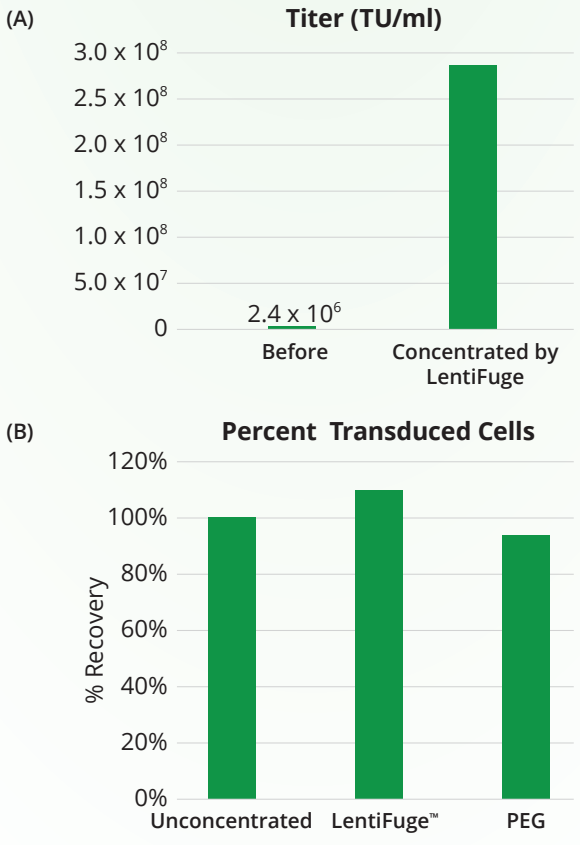


Figure 2: (A) More than 100-fold of functional lentiviral particles was titered by counting fluorescent HEK293 cells after transduction. (B) More cells were transduced with LentiFuge-concentrated viral particles than with the same number of unconcentrated virus. This effect is likely because LentiFuge concentration removes contaminants from the viral preparation (see Figure above). With PEG concentration , ~5-10% loss of functional viral particles occurs.

Ordering Information

Catalog #	Description	Quantity
LFVC1	LentiFuge™ Viral Concentration Reagent (Quantity provides enough for concentrating 1 liter of viral supernatant)	1 ml (1000X)