# **LentiPrep**<sup>™</sup> Packaging Plasmids Reagent Set



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 make, titer, and transduce any of Cellecta's lentiviral vectors:

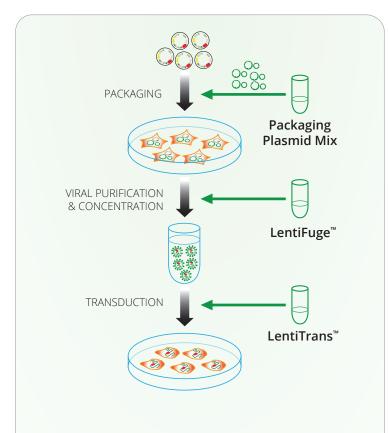
- 1. Ready-to-use Packaging Plasmid Mix
- 2. LentiFuge™ Viral Concentration Reagent
- 3. LentiTrans™ Transduction Reagent
- 4. Control plasmid with either GFP or RFP to test packaging and transduction efficiency

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

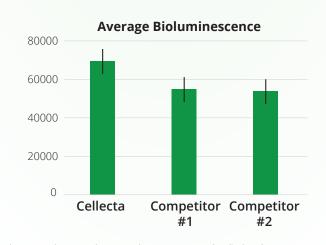
The price of the bundle is more economical that purchasing each reagent separately and a lentiviral control (with GFP or RFP) is included at no additional cost.

#### **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 virus was used fresh to transduce 293T cells for 48 hours. Firefly luciferase activity was assayed using a standard protocol and compared to untransduced cells. The results show a improvement with Cellecta's mix over the mixes from both competitors.

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Cellecta LentiFuge™ Viral Concentration Reagent

concentrates and purifies pseudo-lentiviral particles with low-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, low-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

#### **Ordering Information**

#### Catalog # Description

LFVC1

LentiFuge™ Viral Concentration Reagent

(Quantity provides enough for concentrating 1 liter of viral supernatant)

### Quantity

1 ml (1000X)

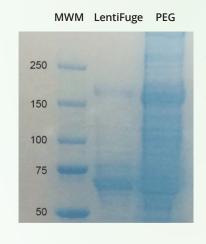
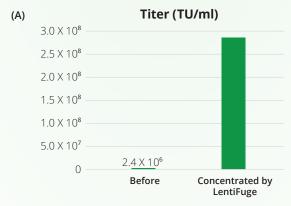


Figure 1: Virus precipitated with LentiFuge contains significantly less culture medium serum contaminants than samples concentrated using polyethylene glycol (PEG)-based reagents, and can therefore be resuspended easily in a much smaller volume. The MWM is present to orient the gel.



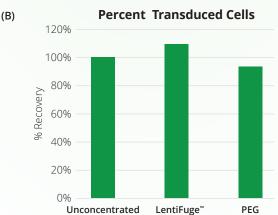


Figure 2: (A) More than 100-fold of functional lentiviral particles as titered by counting fluorescent HEK293 cells after transduction. (B) More cells transduced with LentiFuge-concentrated viral particles than with the same number of unconcentrated virus. This effect is likely because LentiFuge concentration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

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