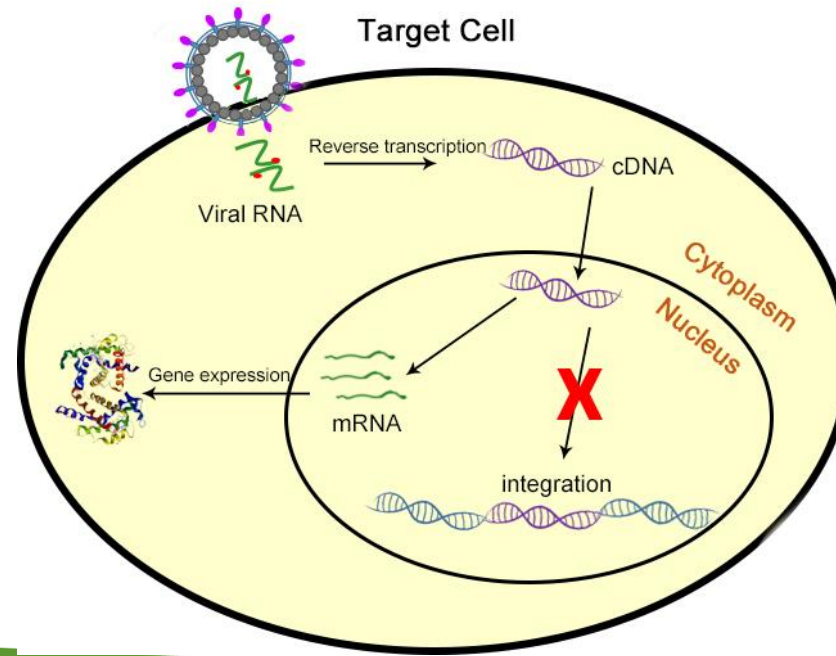
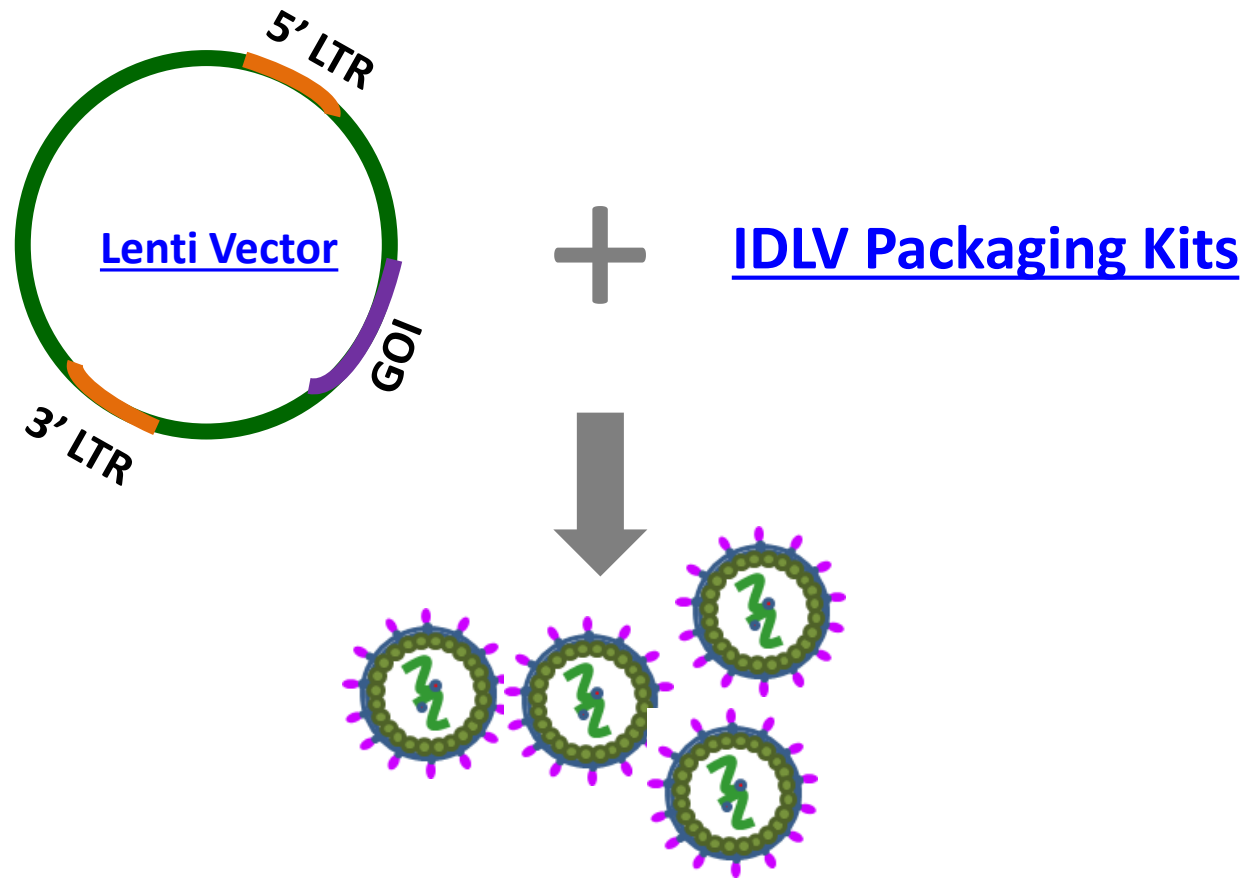


What is IDLV?

- IDLV is Integration Deficient Lentivirus
- No integration into the host Genome
- Genes/shRNA expressed transiently
- Same cell spectrum & efficiency as regular lentivirus



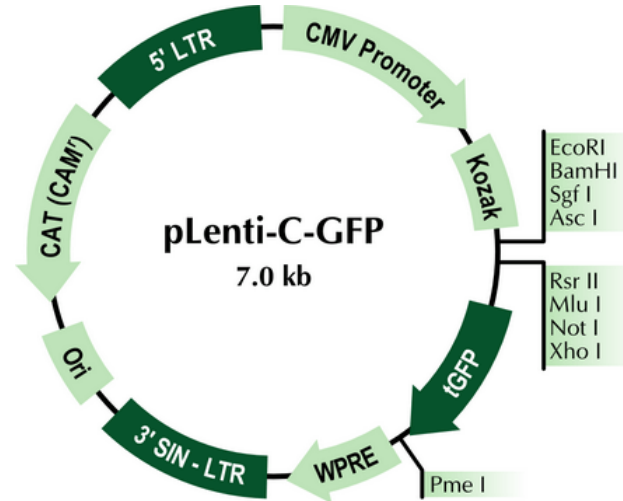
How To Produce Integration Deficient Viral Particles?



Integration Deficient Lentivirus (IDLV)

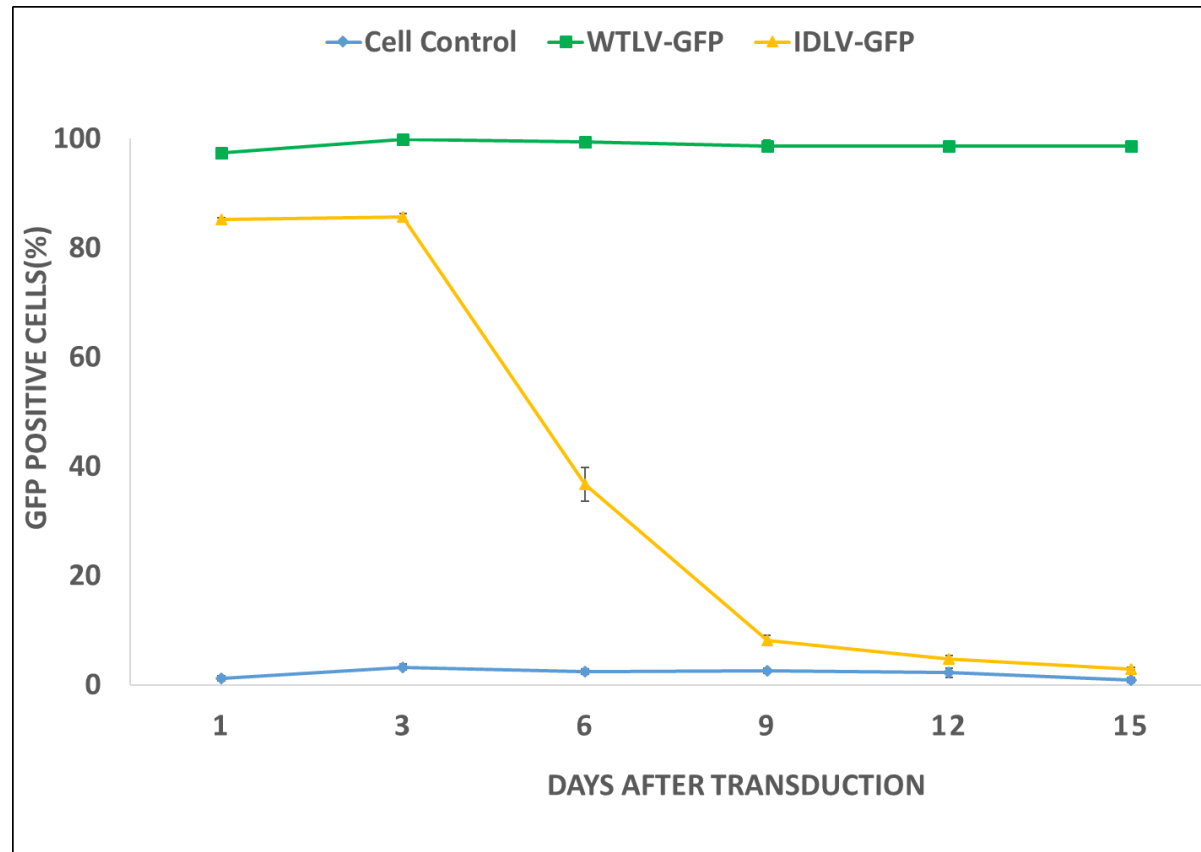
Titer of IDLV is Same as Regular Virus

Type of Lentivirus	Titer (TU/ml)
Regular Lenti-GFP	2.9×10^7
IDLV-GFP (Integration Deficient)	2.7×10^7



Lenti-C-GFP vector was used to package into lentivirus using regular lenti packaging kit (cat# [TR30037](#)) or integration-deficient (IDLV) lenti packaging kit (cat# [TR30036](#)). Viral titer was the same.

IDLV-GFP Mediated Expression is Transient



Regular lenti-GFP virus (WTLV-GFP) and IDLV-GFP virus transduced HT1080 cells at 20 moi, GFP positive cells sorted at time points indicated.

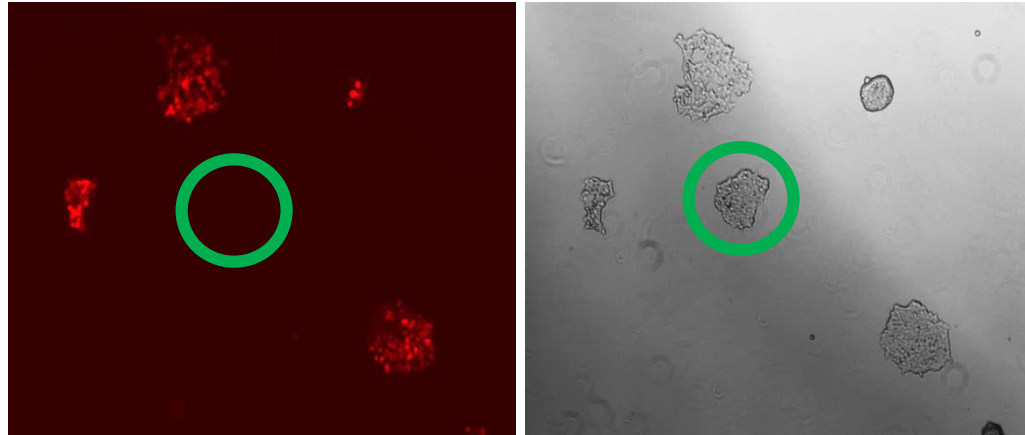
Applications Using IDLV

- ✓ **Transient expression preferred**
- ✓ **Long-term or stable integration not wanted**

CRISPR genome editing, Cas9 and sgRNA only needed to cut the genome temporally. Once genome editing is achieved, no need for Cas9 and sgRNA.

Functional Delivery of CRISPR by IDLV

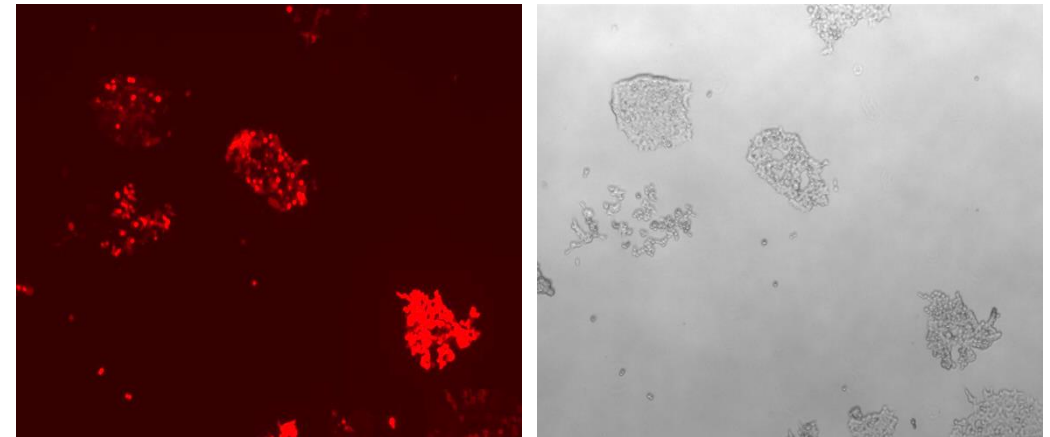
IDLV (Cas9 + gRNA-tRFP)



Fluorescence

Phase contrast

IDLV (Cas9+ gRNA-Scramble)

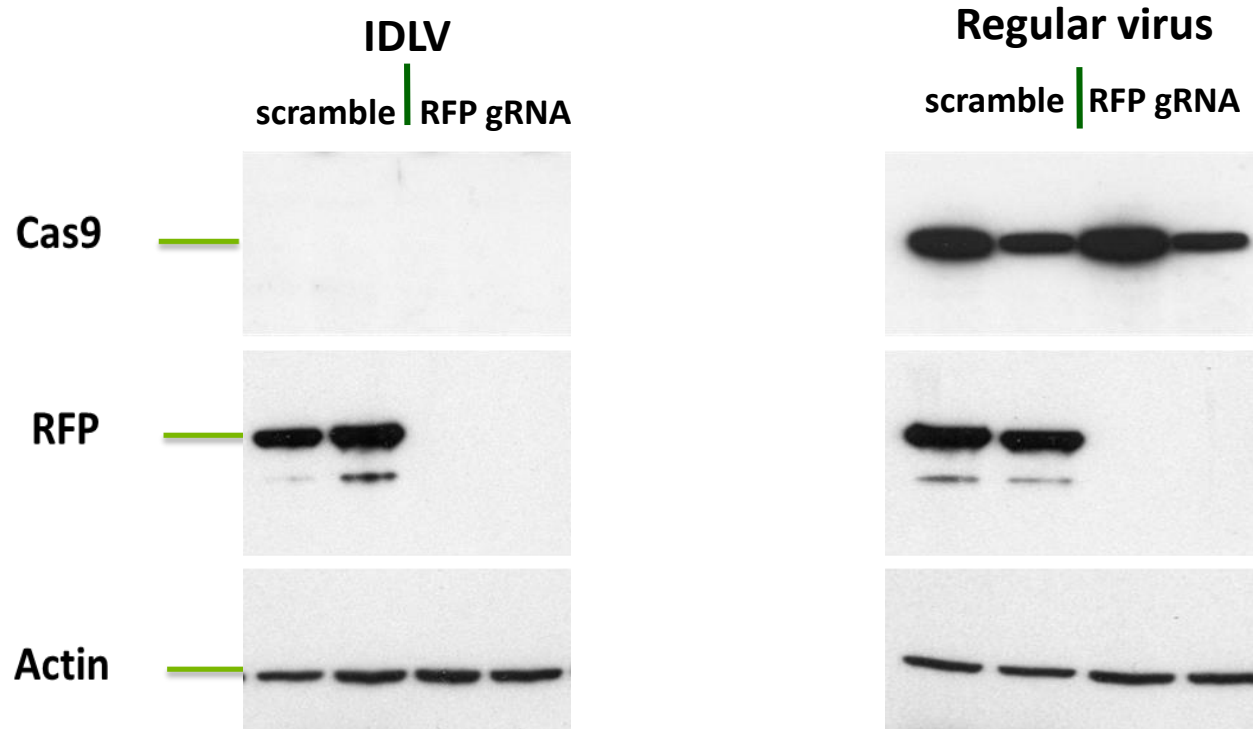


Fluorescence

Phase contrast

IDLV Cas9 and gRNA targeting tRFP were transduced into HEK293-RFP cells; scramble gRNA was used as negative control. Single cell colonies were isolated two weeks after transduction. RFP was knocked out in cells in green circle.

Effective KO of RFP W/O Footprint of Cas9



3 weeks after transduction, WB was analyzed to check the RFP expression in single cell colonies; scramble control cells (RFP positive), RFP gRNA cells (not red). IDLV worked similarly as regular lentivirus (LV); RFP knocked out, but no Cas9 in cells.