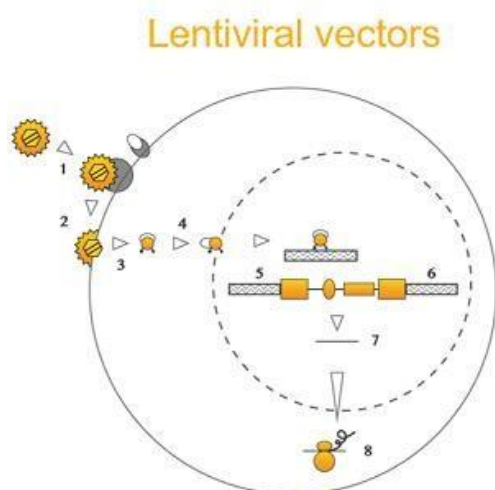


Integrative lentiviral vectors or LentiFlash®?

Depending on your application, Flash Therapeutics provides integrative lentiviral particles or LentiFlash®, an innovative non-integrative lentiviral particle for a transient RNA delivery. Both for *in vitro*, *ex-vivo* and *in vivo* use.

1. Integrative lentiviral vectors

- ▶ To **add and overexpress** a gene of interest, to generate **stable cell lines** or for **CAR-T cell** experiments, you need a **stable** gene expression using **integrative lentiviral particles**.



Stable expression	DNA delivery
Long-term expression	Integration into the host genome

Applications:

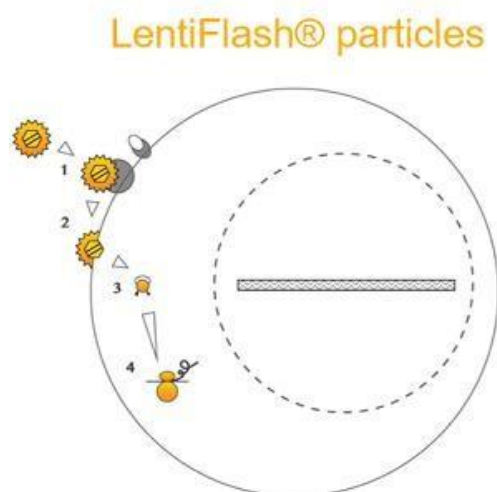
- ▶ Gene overexpression
- ▶ Cell engineering
- ▶ CAR-T cells
- ▶ Immunodeficiency...

Benefits compared to DNA transfection:

- ▶ 100% transduction efficiency in primary and stem cells
- ▶ Preserve original cell phenotype
- ▶ Do not affect cell viability and proliferation
- ▶ For both dividing and non-dividing cells

2. Non-integrative LentiFlash® particles:

- ▶ To make **gene editing, cell differentiation**, cell reprogramming or **DC-based immunotherapy** experiments, you need a transient expression and an RNA delivery using LentiFlash®.



transient expression	RNA delivery
Short-term expression	NO Integration

Applications:

- ▶ Gene editing
- ▶ Cell differentiation
- ▶ Cell reprogramming
- ▶ Immunotherapy
- ▶ Vaccines...

Benefits of LentiFlash® compared to RNA transfection:

- ▶ 100% transduction efficiency in primary and stem cells
- ▶ No genomic traces
- ▶ mRNA transfer without cytotoxicity
- ▶ Preserve original cell phenotype
- ▶ For both dividing and non-dividing cells

FAQs

Why should I use LentiFlash® instead of transfection reagents?

Transfection reagents are commonly used to transiently transfer RNA in cells of interest. However, these reagents impact the cell viability, lead to high cell toxicity and can modify the cell phenotype (when used on difficult to transfect cells). LentiFlash®, an RNA delivery particle derived from lentiviral vectors, resolves these main drawbacks.

Why is the use of LentiFlash® recommended for gene editing?

It has been shown that a stable expression of CRISPR-Cas9 into cells of interest may lead to off-target activity which results in unexpected genome modifications. For this reason, we advise scientists to use LentiFlash® for gene editing experiments.