

What is LentiFlash®?

LentiFlash® is a new generation of non-integrating lentiviral particles. It is a safe, transient and efficient tool for the transfer of mRNA or other types of RNAs in any target cells.

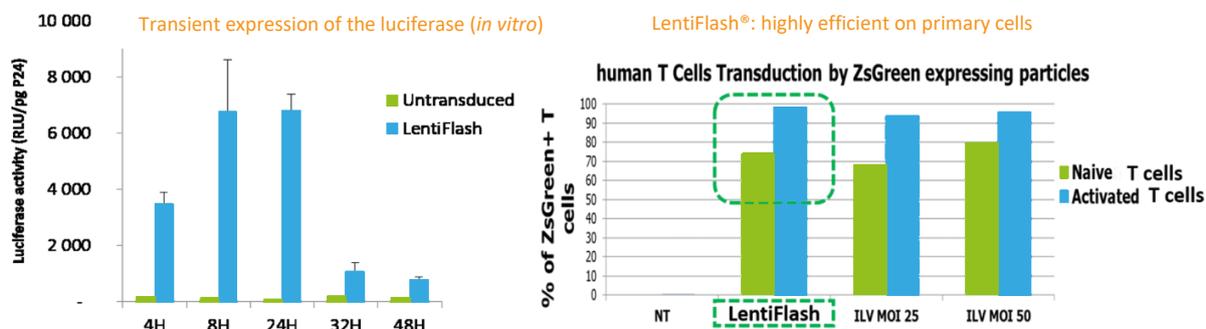
LentiFlash®: An RNA delivery lentiviral particle

LentiFlash®, a new non-integrative lentiviral particle dedicated to cell and gene therapy applications, allows:

- ▶ A safe and efficient non-viral RNA delivery
- ▶ A short-term expression of your sequence of interest without retro-transcription nor integration
- ▶ A transient RNA expression without genomic trace

1. A safe and efficient RNA delivery into primary and stem cells

LentiFlash® particles are VSV-G pseudotyped and highly purified. These two criteria make LentiFlash® very efficient for the transfer of biologically active RNAs into various cell types including immortalized, primary and stem cells. LentiFlash® does not require any selection process and preserves the original cell phenotype, proliferation and viability.



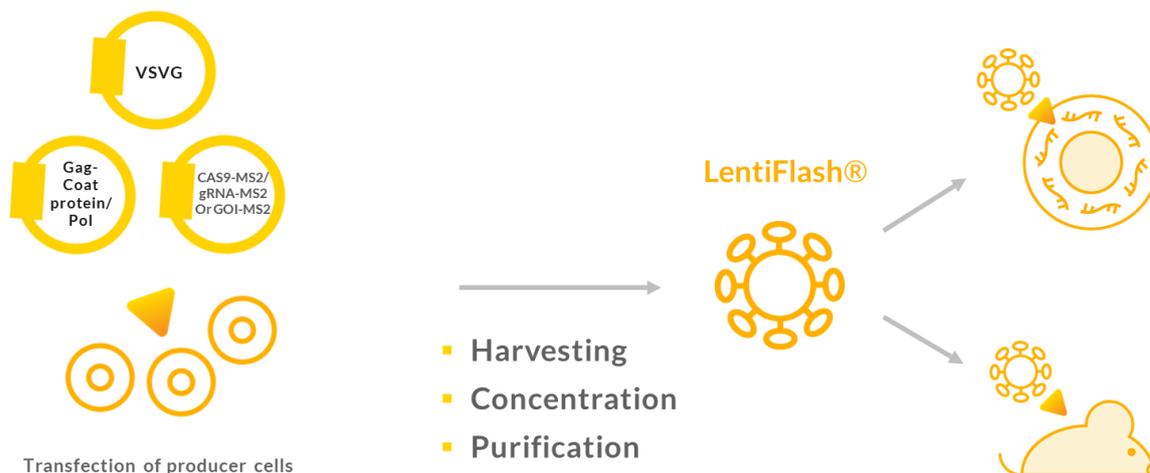
2. A transient and short-term expression:

LentiFlash® delivers mRNA directly into the cytoplasm leading to a high, transient and short-term expression (4h post-transduction) of your sequence of interest. These assets make LentiFlash® particularly suitable to carry CRISPR-Cas9 into any cell type while preserving their original cell phenotype and viability.

3. An RNA-delivery system based on a bacteriophage coat protein

LentiFlash® is an RNA delivery system based on a bacteriophage Coat protein-lentivirus chimeras. It has been constructed by exploiting a bacteriophage Coat protein and its cognate 19-nt stem loop instead of the natural lentiviral Psi packaging sequence to achieve mRNA packaging into the lentiviral vectors.

The production process is the same as for lentiviral vectors:



4. Applications

- ▶ Gene editing (CRISPR-Cas9 or Cre-lox system)
- ▶ Cell differentiation
- ▶ Cell reprogramming
- ▶ DC-based vaccines

5. Two formats of LentiFlash® are available:

- ▶ Custom LentiFlash®: RNA delivery in hard to transfect cells without cytotoxicity made custom with your sequence for your model
- ▶ Ready-to-use LentiFlash®: LentiFlash® particles carrying gene editing proteins, fluorescent reporters or bioluminescent reporters

For specific applications or for testing, feel free to contact us at tech@vectalys.com.