

# WHAT IS LENTIFLASH™?

LentiFlash™ is the new generation of non-integrative lentiviral particles. It is a versatile, transient and efficient tool for RNA transfer into hard to transfect cells.

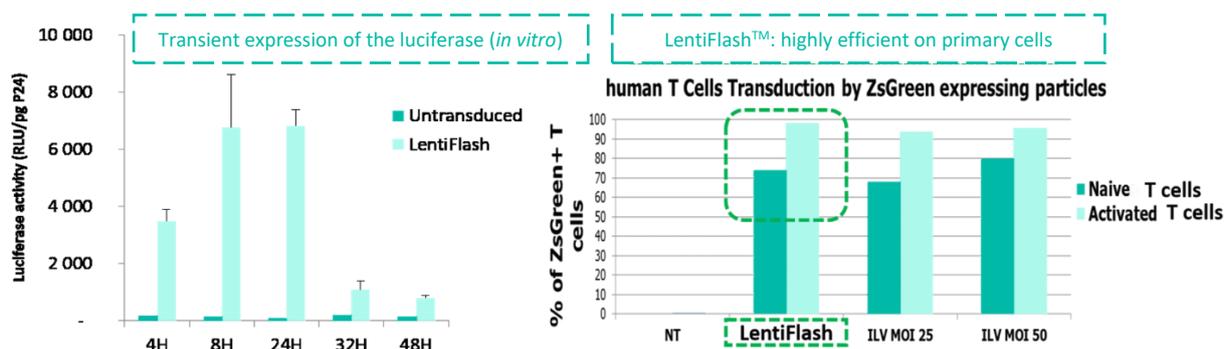
## Lentiviral technology with RNA transfection advantages

Unlike integrative (iLVs) Lentiviral Vectors and integrase Deficient Lentiviral Vectors (iDLVs) which imply viral RNA retro-transcription into DNA and genomic integration of the gene of interest, LentiFlash™ allows:

- ▶ Non-viral mRNA delivery
- ▶ Direct expression of your sequence of interest without retro-transcription nor integration
- ▶ A transient expression without genomic trace

### 1. Efficient and transient 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 in various cell types including immortalised, primary and stem cells. LentiFlash™ does not require any selection process.



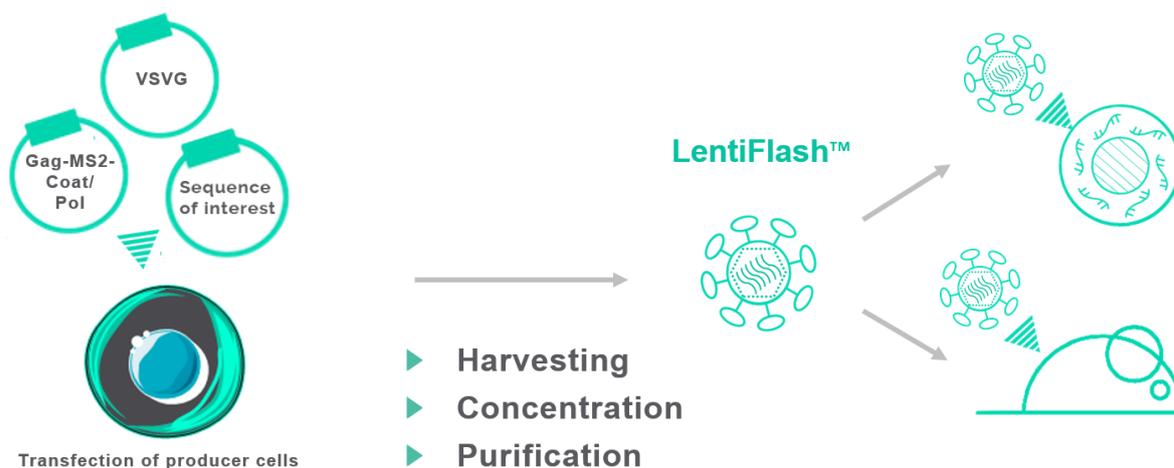
### 2. Short term expression

LentiFlash™ delivers RNA directly into the cytoplasm leading to a high and short-term expression (4h post-transduction) of your sequence of interest. As a result, it allows a fast and transient expression.

### 3. A RNA-delivery system based on bacteriophage MS2 Coat protein

LentiFlash™ is a non-viral RNA-delivery packaging system based on bacteriophage MS2-Coat-lentiviral chimeras. It has been constructed by exploiting bacteriophage MS2-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. Three 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
- ▶ Plasmid expression retrovirus like particles (RLP): Do it yourself. Order our RLP plasmid vector to make your own non-integrative lentiviral particles in your academic lab

For specific applications or for testing, feel free to contact us at [tech@vectalys.com](mailto:tech@vectalys.com).