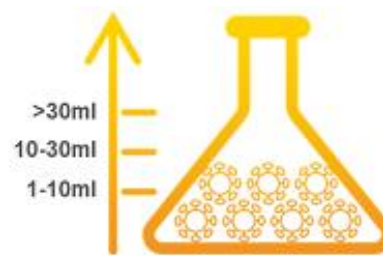


Large scale production of lentiviral tools

Vectalys offers customized lentiviral vectors at a large scale (>10 ml) in Vectalys Premium quality. This offer allows to meet our customer needs from basic research to pre-clinical assays.

CROSS THE GAP BETWEEN BASIC RESEARCH TO CLINICAL ASSAYS

Same purity, same titer, from small to large scale lentiviral vector productions.



VECTALYS PREMIUM QUALITY

With highly pure and concentrated lentiviral vectors, you can count on:

- ▶ The **same premium vector composition** from research to clinical assays
- ▶ Early-on research assessment of the **right vector dose** for therapeutic effect
- ▶ The **same batch** for multiple research and pre-clinical assays
- ▶ **Reduced cost per batch**

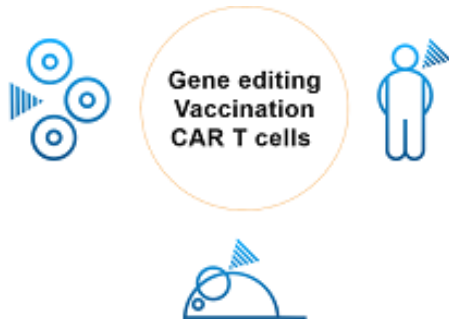
1. Applications of large scale lentiviral vector production

The emergence and popularity of lentiviral vectors in pre-clinical and clinical research brings pharmaceutical companies to consider large volumes of lentiviral vectors.

Applications: inherited genetic diseases, CAR T cells or gene editing based therapies. These applications are bringing new hopes to cure cancer or rare diseases:

- ▶ Pre-clinical gene therapy assays (immunotherapy, gene editing, inherited genetic diseases)
- ▶ Animal diseases modelling (vaccination, metabolic disorder, other models...)
- ▶ High-throughput screening

Use the same batch quality from research to clinical applications



Gene editing
Vaccination
CAR T cells

VECTALYS PREMIUM QUALITY

Titer	PP/TU ratio	Specific activity	Protein removal	Cell types
>1E9 (TU/ml)	<300	>1E8 (TU/mg protein)	>98%	Primary & stem cells

Estimated number of transduction experiments you can expect with each volume:

HEK293T	T lymphocytes		HEK293T	T lymphocytes
5000 assays*	2000 assays**		2000 assays*	800 assays**
HEK293T	T lymphocytes			
200 assays*	80 assays**			

* : Into 6 well plates containing 25 000 cells/cm³ with lentiviral batch at 1^{E9} TU/mL

** : Into 24 well plates containing 500 000 cells/ml with lentiviral batch at 1^{E9} TU/mL

The image above represents an estimated number of transductions one could perform with each scale of lentiviral vector batches, on HEK293T and T lymphocytes. For example, a single 25ml batch of highly purified and concentrated lentiviral vectors, allows to perform 5000 transductions of HEK293T cells.