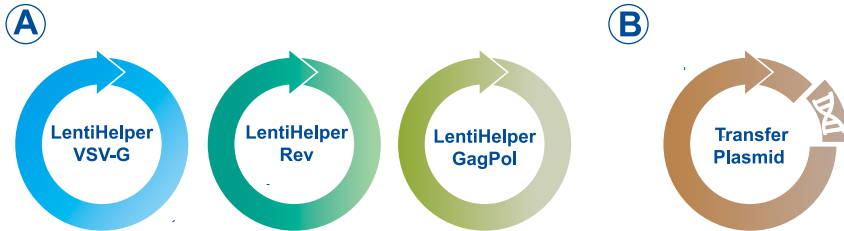


IMPROVING PLASMID AND LENTIVIRAL VECTOR MANUFACTURING QUALITY FOR CELL THERAPY

Partner with GenScript ProBio to Achieve Next Milestone

Cell Therapy Process Based on 3rd Generation Lentiviral Vector System

Plasmid Manufacturing



LentiHelper Plasmids
Ready-to-use packaging plasmids for lentiviral vector

LentiHelper VSV-G
LentiHelper Rev
LentiHelper GagPol

Viral Vector Packaging

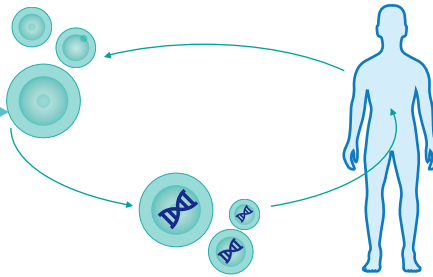
(C)



Lentiviral vector with GOI

CAR-T Manufacturing

(D)



Process:

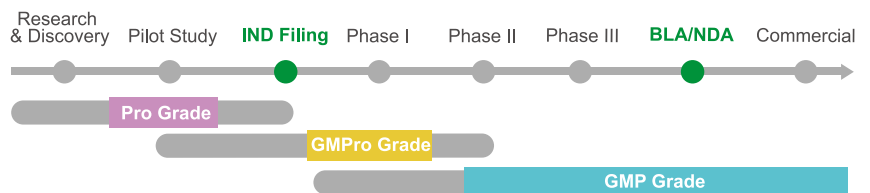
- A Three helper plasmids are used for packaging of the lentiviral vector.
- B GOI (gene of interest) is carried by a transfer plasmid.
- C Lentiviral vector with GOI is packaged by the helper plasmids and transfer plasmid.
- D The lentiviral vector with GOI is used to transduce effector cells from patients.

GenScript ProBio Accelerates Cell Therapy throughout Lifecycle

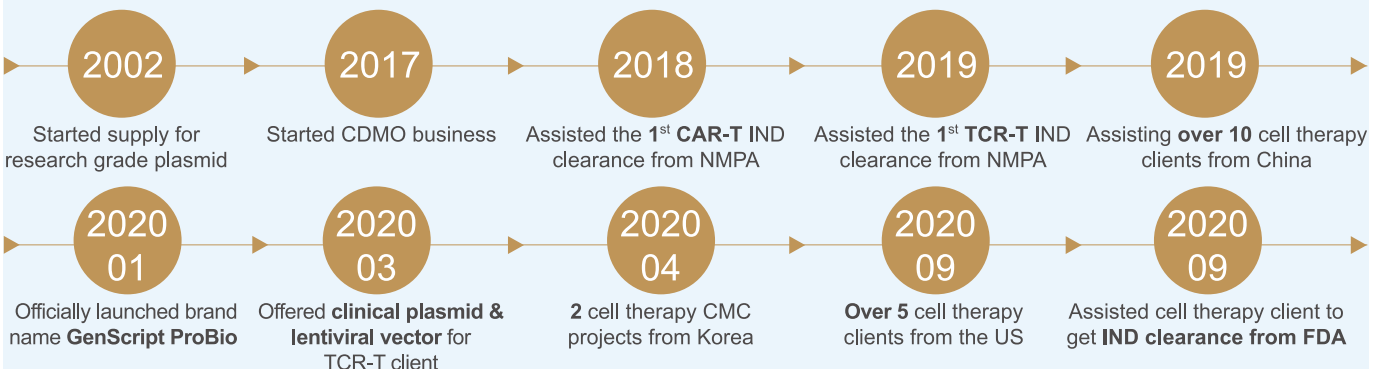
GenScript ProBio Offerings

Product	Service
Ready-to-use LentiHelper Plasmids	Plasmid Manufacturing
	Lentiviral Vector Manufacturing
	Process Development
	Regulatory Filing

Various Offerings Covering the Whole Product Lifecycle



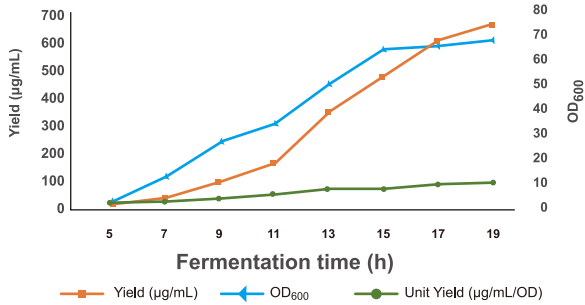
Reliable CDMO Partner with Extensive Experience



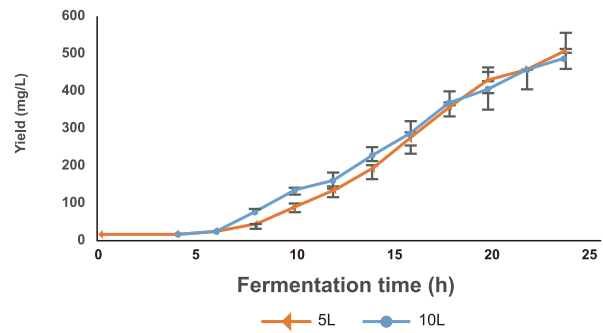
Improving Plasmid and Viral Vector Quality

High Quality Guaranteed—Robust Plasmid Manufacturing Process

Increase of yield, OD₆₀₀ by the change of fermentation time



Change of yield during fermentation in 5L/10L scale



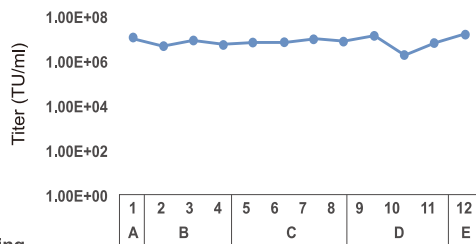
High yield : Product yield reaches 500 mg/L and higher
High stability : Low deviation among different batches
Feasible to scale up : High consistency between different fermentation scales; stable and controllable fermentation process

Risk Mitigation—Closed Adherent Culture System Avoids Contamination



Initial state - before cell seeding
 In operation - transfection & packaging

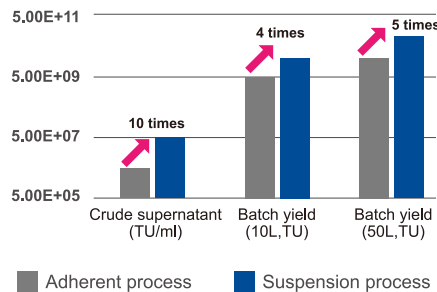
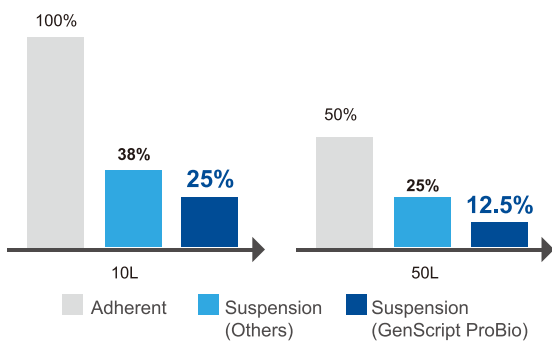
Product titer of 12 batches in 5 projects



Closed culture system
Risk mitigation—Avoid contamination
Improvement of reproducibility and stability—full automatic operation
Product titer > 5E+7 TU/ml

Cost Reduction & Yield Improvement—Well-established Suspension System

Cost Down by 50%-75%



Lower Cost:
 Cost cut down by 50%~75%
Higher Crude Titer:
 10 folds increased
Higher Yield:
 5 folds increased

Company Information

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