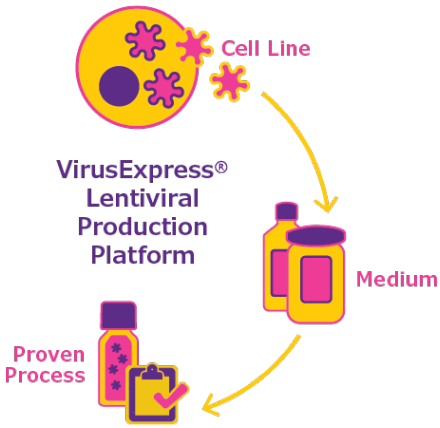
SAFC®
Pharma & Biopharma Raw Material Solutions

Data Sheet

VirusExpress® Lentiviral Production Platform

Draw on our experience to get on the fast track through production

The VirusExpress® Platform offers a transfection-based solution to lentiviral (LV) production challenges, featuring a suspension adapted cell line, chemically defined medium, and process with proven performance at 50 L scale. The platform can dramatically reduce time in process development and scale-up, either within your own facilities or using our contract manufacturing capabilities to speed your therapy to patients.



Our VirusExpress® Platform offers:

- A transfection-based solution to lentiviral (LV) upstream production challenges
- A suspension adapted cell line of 293T Lentiviral Production Cells optimized for production of lentiviral vectors for gene therapy applications
- Chemically defined medium to alleviate animal origin and supply chain concerns
- Proven process performance at 50 L scale with functional titer exceeding 4 x 10^7 TU/mL
- Comprehensive user protocols to guide from seed train through at-scale transfection and virus production, allowing for seamless scale-up

Benefits

- GMP banked cells which are fully characterized in accordance with FDA cGMP regulations (21 CFR 210, 211, 600, 610).
- Proven performance for cell growth, plasmid transfection, and lentiviral production in large-scale bioreactors at clinically and commercially relevant scale which yielded functional titers in excess of 4 x 10^7 TU/mL.
- Licenses available for research, clinical and commercial use dependent on which phase of gene therapy development is needed.
- Reduced time in process development and scale-up by approximately 40%.
- Flexibility to use in your own facilities or by using our contract manufacturing capabilities.
- Ability to speed your therapy to patients.
- Robust quality documentation to support regulatory filings and commercialization of your gene-modified cell therapy or gene therapy.

MilliporeSigma

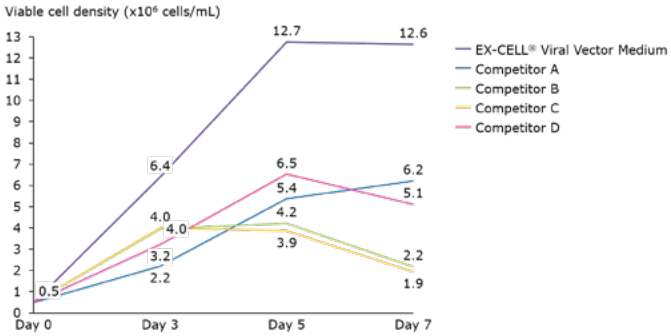


Figure 1. VirusExpress® 293T Lentiviral Production Cells – growth assay in shake flasks versus competitor cell culture media.

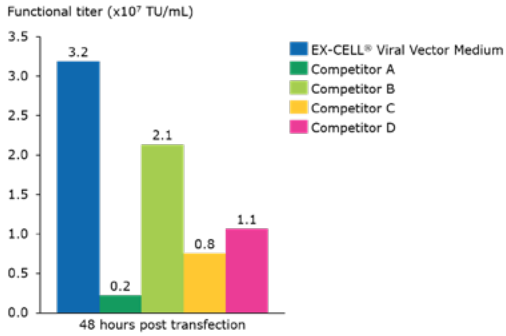


Figure 3. VirusExpress® 293T lentiviral production cells – productivity in shake flasks versus competitor cell culture media.

VirusExpress® 293T lentiviral production cells adapted for 5 passages in each medium. 30 mL culture in 125 mL baffled flask, Inoculation cell density of $5x10^5$ cells. Cells fed 4 mM Gln and 3 g/L glucose on days three and five. Competitors A and C required anti-clumping reagent.

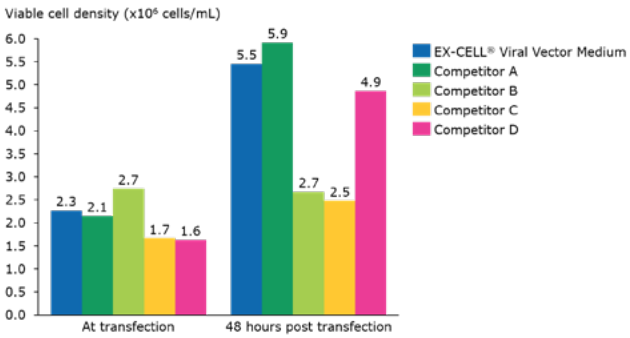


Figure 2. VirusExpress® 293T Lentiviral Production Cells – transfection VCD in shake flasks versus competitor cell culture media.

VirusExpress® 293T lentiviral production cells, 30 mL culture in 125 mL baffled flask. Inoculation cell density of $1x10^6$ cells. Transfection with PEI 24 hours post-seeding. Competitors A and C had to be spun down to remove anti-clumping reagent.

VirusExpress® 293T lentiviral production cells, 30 mL culture in 125 mL baffled flask. Inoculation cell density of $1x10^6$ cells. Transfection with PEI 24 hours post-seeding. Third generation packaging system with GFP+*pac* transgene.

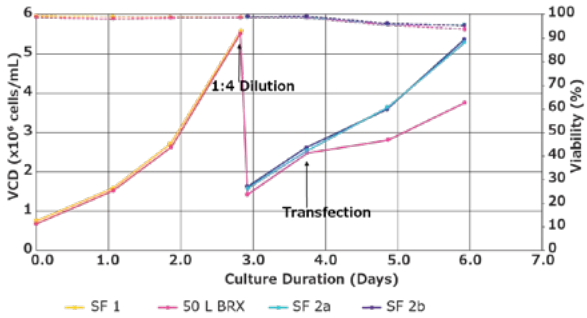


Figure 4. VirusExpress® 293T lentiviral production cell growth assay during scale up from shaker flask to 50 L Mobius® Single-Use Bioreactor. Target VCD for transfection of ≥ 2.4 x 10^6 cells/mL

Product Description	Storage Temperature	Package Size	Cat. No.
VirusExpress® 293T Lentiviral Production Cells*	-196 °C (Liquid N_2 vapor phase)	—	**VP001-1VL**
EX-CELL® CD HEK293 Viral Vector Medium – Chemically defined, animal component-free, without L-glutamine, liquid, sterile-filtered, suitable for cell culture	2–8 °C	1000 mL in bottle	**14385C-1000ML**
		10 L in bag	**14385C-10B**

* Research and commercial licensing are required to use this cell line. *Please contact us before placing your order.*

To place an order or receive technical assistance

Connect with us at: **EMDMillipore.com**

MilliporeSigma
400 Summit Drive
Burlington, MA 01803

MS_DS8066EN Ver. 1.1
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10/2021