

ViralSEQ™ Lentivirus Titer Kits

Catalog Numbers A53561, A53562, A52597, and A52598

Pub. No. MAN0026219 Rev. B.0

Note: For safety and biohazard guidelines, see the “Safety” appendix in the *ViralSEQ™ Lentivirus Titer Kits User Guide* (Pub. No. MAN0026126). Read the Safety Data Sheets (SDSs) and follow the handling instructions. Wear appropriate protective eyewear, clothing, and gloves.

Product description





The Applied Biosystems™ ViralSEQ™ Lentivirus Titer Kits are TaqMan™-based, real-time PCR assays for process development and characterization of lentivirus vectors. The ViralSEQ™ Lentivirus Physical Titer Kit quantitates the amount of lentivirus in the supernatants of cell-based, bioproduction systems. The ViralSEQ™ Lentivirus Proviral DNA Titer Kit quantitates genome copies integrated into cells post-transduction. Both kits use provided controls to generate standard curves used in quantitation. With specific quantitation of viral and proviral copy numbers, qPCR data from physical and infectious titers can be easily compared. Together, the ViralSEQ™ Lentivirus Titer Kits provide a convenient method to correlate total and infectious lentiviral particles during process development and optimization.

Both the ViralSEQ™ Lentivirus Physical Titer Kit and the ViralSEQ™ Lentivirus Proviral DNA Titer Kit are compatible with the PrepSEQ™ Nucleic Acid Sample Preparation Kit (Cat. [A50485](#)), which offers both manual and automated sample preparation workflows. For real-time PCR, both kits have been validated on the Applied Biosystems™ 7500 Fast Real-Time PCR System and the Applied Biosystems™ QuantStudio™ 5 Real-Time PCR System. Data analysis is streamlined using AccuSEQ™ Real-Time PCR Software that provides accurate quantitation. The software has security, audit, and e-signature capabilities to enable 21 CFR Pt 11 compliance.

- The ViralSEQ™ Lentivirus Physical Titer Kit can be used to quantitate viral titers through the measurement of lentivirus RNA in the supernatants of cell-based production systems.
- The ViralSEQ™ Lentivirus Proviral DNA Titer Kit is used to quantitate the number of proviral copies incorporated into host cells following transduction.

Contents and storage

Table 1 ViralSEQ™ Lentivirus Physical Titer Kit (Cat. No. [A52597](#))

Contents	Cap color	Amount	Storage
Box 1, ViralSEQ™ Lentivirus Physical Titer qPCR Reagents			
Physical Titer Assay Mix	 (Gold)	275 µL	Protect from light. –25°C to –15°C
25× RT-PCR Enzyme Mix	 (Green)	110 µL	–30°C to –10°C
2× RT-PCR Buffer	 (Red)	1.375 mL	
Nuclease Free Water	 (White)	1.0 mL	–25°C to –15°C until first use. After first use, store at 2–8°C.


Contents	Cap color	Amount	Storage
Box 2, ViralSEQ™ Lentivirus Physical Titer RNA Control			
Physical Titer RNA Control (2 × 10 ¹⁰ copies/μL)	 (Gray)	44 μL	–25°C to –15°C
RNA Dilution Buffer	Clear bottle	7.0 mL	

Table 2 ViralSEQ™ Lentivirus Physical Titer Kit with PrepSEQ™ Nucleic Acid Sample Preparation Kit (Cat. No. [A52598](#))

Contents	Cat. No.	Amount
ViralSEQ™ Lentivirus Physical Titer Kit	A52597	1 kit
PrepSEQ™ Nucleic Acid Sample Preparation Kit	A50485	1 kit
DNase I, RNase-free (1 U/μL)	EN0521	1 kit

Table 3 ViralSEQ™ Lentivirus Proviral DNA Titer Kit (Cat. No. [A53561](#))





Contents	Cap color	Amount	Storage
Box 1, ViralSEQ™ Lentivirus Proviral DNA Titer qPCR Reagents			
Proviral DNA Titer Assay Mix	 (Purple)	660 μL	Protect from light. –25°C to –15°C
2× Environmental Master Mix 2.0	 (Orange)	2 × 0.75 mL	–25°C to –15°C
Nuclease Free Water	 (White)	1.0 mL	–25°C to –15°C until first use. After first use, store at 2–8°C.
Box 2, ViralSEQ™ Lentivirus Proviral DNA Titer Control			
Proviral DNA Titer Control (2× 10 ⁸ copies/μL)	 (Blue)	44 μL	–25°C to –15°C IMPORTANT! Do not store below –25°C.
DNA Dilution Buffer	Clear bottle	7.0 mL	–25°C to –15°C

Table 4 ViralSEQ™ Lentivirus Proviral DNA Titer Kit with PrepSEQ™ Nucleic Acid Sample Preparation Kit (Cat. No. [A53562](#))

Contents	Cat. No.	Amount
ViralSEQ™ Lentivirus Proviral DNA Titer Kit	A53561	1 kit
PrepSEQ™ Nucleic Acid Sample Preparation Kit	A50485	1 kit

Limited product warranty

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Revision history: Pub. No. MAN0026219

Revision	Date	Description
B.0	19 August 2022	New document for the ViralSEQ™ Lentivirus Physical Titer Kit (Cat. No. A52597).
A.0	6 July 2022	New document for the ViralSEQ™ Lentivirus Proviral DNA Titer Kit (Cat. No. A53561).

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