

• Principle of the Assay

Lenti RapidTiter Sticks are used for semi-quantitative detection of lentiviral P24 protein in cell culture or purified lentiviral samples. When an adequate volume of sample is dispensed into the sample well of the cassette, the sample migrates by capillary action across the cassette. The lentiviral p24 antigen, if present in the sample, will bind to the anti-p24 conjugate. The immunocomplex is then captured on the membrane by the pre-coated antibody forming a pink/purple test line (T line). The lentiviral titer can then be estimated according to the titer reference card. Lenti RapidTiter Sticks are intended for research use only.

• Package Contents

Cat #	RapidTiter Sticks	Running Buffer	Reference Card
TW000022S	5 sticks	1.0 ml/vial	1
TW000022M	5 x 5 sticks	5 x 1.0 ml/vial	5 x 1
TW000022L	10 x 5 sticks	10 x 1.0 ml/vial	10 x 1

• Storage and Stability

Store all test components at room temperature. The kit should not be used beyond the expiration date. Leave Lenti RapidTiter Sticks sealed in its foil pouch until just before use. Do not use if pouch is damaged or open. Once opened, the Lenti RapidTiter Stick should be used immediately.

• Precautions

1. Handle lentiviral samples according to the requirement for your organization, as well as local and governmental requirements.
2. Disposal should be according to organization, local, state, and country policies for handling biological samples.
3. The Reagent Solution in this kit can irritate the skin and cause eye damage. Handle them with care and wear protective gloves, clothing, and eye/face protection. Wash hands thoroughly after handling. Immediately flush the affected area with plenty of water in case of contact with skin or eyes. Obtain medical attention if necessary.

• Test Procedure

Read all instructions carefully before performing the test. Failure to follow the instructions may result in inaccurate test results.

【NOTE】

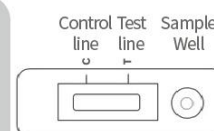
We recommend making a serial dilution of your sample and testing a couple of the diluted samples for the best estimate of the titer concentration. Select an optimal dilution level such that the result is within the detection range (2.5×10^5 TU/ml to 2.5×10^7 TU/ml). Dilute the sample using the same diluent as your sample matrix such as cell culture media or PBS.



For best results read after exactly 10-minute development. If the development time is over 12 minutes, the samples may over develop resulting in an inaccurate assessment. Repeat the test with a fresh stick if necessary.

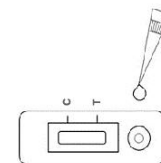
01

Take out Lenti RapidTiter Stick from the foil pouch and place it on a flat surface. Set a timer for 10 min. Pipette 20 μ L of your sample into the sample well.



02

Immediately pipette 80 μ L p24 Running buffer into the sample well.



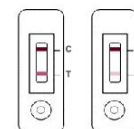
03

Press [Start] to activate the timer. Wait for 10 minutes for the sample band to fully develop.



04

After the 10-minute development period, refer to the reference card for viral titer estimation.



● Interpretation of Result

1. Positive result

If both C (Control) and T (Test) lines develop, the test indicates the presence of detectable p24 antigen in the sample. Compare T line density of your sample to the T line in the Reference Card and estimate the lentiviral titer according to the sample T line density closest to which T line density in the Reference Card. If the sample is diluted, calculate your result using the dilution factor. If the T line is saturated, which means the sample has a titer higher than the detection range, we recommend performing a 10X or higher dilution and repeating the test with a new Lenti RapidTiter Stick.

2. Negative result

If only the C line develops, the test indicates that there is either no detectable p24 antigen is present in the sample or the titer is too low to detect.

3. Invalid result

If no C line develops, the assay is invalid regardless of any color development on the T line as indicated below. Repeat the assay with a new test device.



● Disclaimers

1. Lenti RapidTiter Sticks are for research use only. Not for use in diagnostic procedures or any other purpose.
2. Do not reuse the used Lenti RapidTiter Stick. Do not mix components from different kit lots.

● Related OriGene Products

1. Lenti-ORF, Plasmid and Ready-to-use Particles
2. Lenti-shRNA, Plasmid and Ready-to-use Particles
3. Lentiviral Packaging Kits, high-efficiency
4. Lenti Concentrator, concentrate lentivirus in 2hrs
5. Lenti Titer Kit, One Wash™ Lentivirus Titer Kit
6. Lentivirus Stabilizer, Extend the lentiviral stability for one year