

QuickTiter Lentivirus Assay Kit

QuickTiter Lentivirus Quantitation Kit

CATALOG #
AAA44554

PRODUCT SYNONYMS

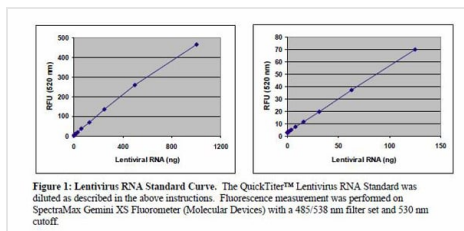
QuickTiter Lentivirus; QuickTiter Lentivirus Quantitation Kit; QuickTiter Lentivirus assay kit

PRODUCT SPECIFICATIONS

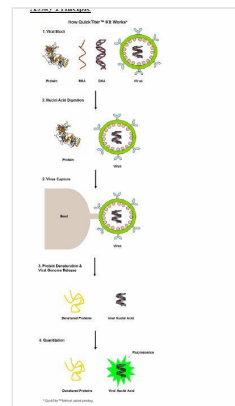
Preparation and Storage

Store all kit components at 4 degree C until their expiration dates.

IMAGES



Application Data



Application Data

ADDITIONAL INFORMATION

Related Product Information for QuickTiter Lentivirus assay kit

Background: Lentivirus vector based on the human immunodeficiency virus-1 (HIV-1) has become a promising vector for gene transfer studies. The advantageous feature of lentivirus vector is the ability of gene transfer and integration into dividing and non-dividing cells. The pseudotyped envelope with vesicular stomatitis virus envelope G (VSV-G) protein broadens the target cell range. Lentiviral vectors have been shown to deliver genes to neurons, lymphocytes and macrophages, cell types that previous retrovirus vectors could not be used. Lentiviral vectors have also proven to be effective in transducing brain, liver, muscle, and retina in vivo without toxicity or immune responses. Recently, the lentivirus system is widely used to integrate siRNA efficiently in a wide variety of cell lines and primary cells both in vitro and in vivo. Lentivirus particles are produced from 293T cells through transient transfection of 3 or 4 plasmids that encodes for the components of the virion. Viral medium containing viral particles produced by packaging cells within 48-72 hr can be harvested. To ensure that pseudoviral medium is viable, and to control the number of copies of integrated viral constructs per target cell, the viral titer needs to be determined before proceeding with transduction experiments. Viral titer can be determined by transduction of HT-1080 or Hela cells, and followed by antibiotic selection of stable clones. However, it takes weeks to generate sizable stable cell colonies for counting and calculating the titer results. proprietary QuickTiter Lentiviral Quantitation Kit does not involve cell infection; instead it specifically measures the viral nucleic acid content of purified viruses or unpurified viral supernatant sample (See Test Principle). In the case of unpurified viral supernatant, the kit is especially useful for determining the supernatant titer before the transduction step. The kit has detection sensitivity limit of 1×10^{10} VP/mL, which is sufficient for mid or high-titer lentivirus sample. The entire procedure takes about 45 to 60 minutes. Each kit provides sufficient reagents to perform up to 20 tests for viral samples and controls. QuickTiter Lentiviral Quantitation Kit provides an efficient system for rapid quantitation of lentivirus titer for both viral supernatant and purified virus. The system may be adapted to quantitation of other viral types, such as retrovirus and adenovirus.

Product Categories/Family for QuickTiter Lentivirus assay kit	Viral Expression; Lentiviral Expression; Lentivirus Quantitation/Titer; Lentivirus Rapid Quantitation Kit
References	1. Naldini, L., U. Blomer, P. Gallay, D. Ory, R. Mulligan, F. H. Gage, I. M. Verma, and D. Trono (1996) Science 272, 263-267. 2. Verma, I. M., and N. Somia (1997) Nature 389, 239-242 3. Kafri, T., U. Blomer, D. A. Peterson, F. H. Gage, and I. M. Verma (1997) Nat. Genet. 17, 314-317. 4. Beyer, W. R., M. Westphal, W. Ostertag, and D. von Laer (2002) J. Virol. 76, 1488-1495. 1. Shin, H. S. et al. (2015). Crosstalk among IL-23 and DNAX activating protein of 12 kDa-dependent pathways promotes osteoclastogenesis. J Immunol. 194:316-324. 2. Rossello, R.A. et al. (2013). Mammalian genes induce partially reprogrammed pluripotent stem cells in non-mammalian vertebrate and invertebrate species. eLife Sci. 2:e00036. 3. Fan, X. et al. (2012). Transient, inducible, placenta-specific gene expression in mice. Endocrinology. 153: 5637-5644. 4. Veeraraghavalu, K. et al. (2010). Presenilin 1 mutants impair the self-renewal and differentiation of adult murine subventricular zone-neuronal progenitors via cell-autonomous mechanisms involving notch signaling. J. Neurosci. 30:6903-6915. 5. Niwano, K. et al. (2008). Lentiviral vector-mediated SERCA2 gene transfer protects against heart failure and left ventricular remodeling after myocardial infarction in rats. Mol. Ther. 16:1026-1032.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/assay-kits/quicktiter-lentivirus/44554>