

QuickTiter Assay Kit

QuickTiter Adenovirus Quantitation Kit

CATALOG #
AAA44512

PRODUCT SYNONYMS

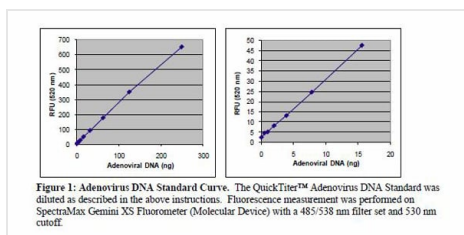
QuickTiter; QuickTiter Adenovirus Quantitation Kit; QuickTiter assay kit

PRODUCT SPECIFICATIONS

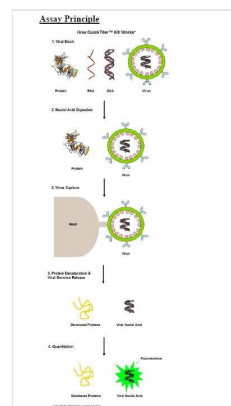
Preparation and Storage

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

IMAGES



Application Data



Application Data

ADDITIONAL INFORMATION

Related Product Information for QuickTiter assay kit	Background: Recombinant adenoviruses have tremendous potential in both research and therapeutic applications. There are numerous advantages they provide when introducing genetic material into host cells. The permissive host cell range is very wide. The virus has been used to infect many mammalian cell types (both replicative and non-replicative) for high expression of the recombinant protein. Recombinant adenoviruses are especially useful for gene transfer and protein expression in cell lines that have low transfection efficiency with liposome. After entering cells, the virus remains epichromosomal (i.e. does not integrate into the host chromosome so does not activate or inactivate host genes). Recently, recombinant adenoviruses have been used to deliver RNAi into cells. HEK 293 cells or their variants are used as host cells for viral amplification. Recombinant adenoviruses can be grown at high titer (1010 VP (viral particles)/mL, which can be concentrated up to 1013 VP/mL) and purified by ViraBind Adenoviral Purification Kit or traditional CsCl ultracentrifugation. A particular challenge in the delivery of a gene by a viral vector is the accurate measurement of virus titer. Traditionally, infectivity particles are measured in culture by a plaque-forming unit assay (PFU) that scores the number of viral plaques as a function of dilution. Others utilize antibodies that recognize adenovirus hexon proteins by immunohistochemistry staining or FACS analysis. These methods are time-consuming, require a long infection period, and suffer from a high degree of inter-assay variability and are affected by virus-cell interactions. For highly purified virus samples, an optical absorbance at 260 nm has been used to estimate the total number of virus particles. However this method can not be used in an unpurified viral supernatant, because some of the components it contains can contribute to the optical absorbance of 260 nm. proprietary QuickTiter Adenoviral 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). Especially for unpurified viral supernatant, the kit is very useful for determining the supernatant titer before the purification step. The kit has detection sensitivity limit of 1 X 10⁹ VP or 1 X 10¹⁰ VP/mL when 100 µL of adenoviral supernatant is used in the assay, which is sufficient for mid or high-titer adenovirus sample. The entire procedure takes about 45 to 60 minutes. Each kit provides sufficient quantities to perform up to 20 tests for viral samples and controls. QuickTiter Adenoviral Quantitation Kit provides an efficient system for rapid quantitation of adenovirus titer for both viral supernatant and purified virus. The system may be adapted to quantitation of other viral types, such as retrovirus and lentivirus.
Product Categories/Family for QuickTiter assay kit	Viral Expression; Adenoviral Expression; Adenovirus Quantitation/Titer; Adenovirus Rapid Quantitation Kit
References	1. Wu N and Atai M. M (2000) Curr Opin Biotechnol. 11(2):205-8. 2. Mizuguchi et al., (2001) Advanced Drug Delivery Reviews 52:165-176. 3. Vorburger, S. A. and Hunt, K. K. (2002) Oncologist 7:46-59. 1. Nuche-Berenguer, B. et al. (2015). Elucidation of the roles of the Src Kinases in pancreatic acinar cell signaling. J Cell Biochem. 116:22-36. 2. Smith, M. et al. (2010). PRDM1/Blimp-1 controls effector cytokine production in human NK cells. J. Immunol. 185:6058-6067. 3. Reiter, C.E.N. et al. (2010). Green tea polyphenol epigallocatechin gallate reduces endothelin-1 expression and secretion in vascular endothelial cells: roles for AMP-activated protein kinase, Akt, and FOXO1. Endocrinology 151:103-114. 4. Sen, P. et al. (2010). Zinc modulates the interaction of protein C and activated protein C with endothelial cell protein C receptor. J. Biol. Chem. 285:20410-20420. 5. Kang, S-H. et al. (2008). Roles of ERK and NFkB in interleukin-8 expression in response to heat shock protein 22 in vascular smooth muscle cells. Korean J. Physiol. Pharmacol. 12:171-176. 6. Rho, M. et al. (2007). Sensitization of vascular smooth muscle cell to TNF-alpha-mediated death in the presence of palmitate. Toxicology and Applied Pharmacology 220(3):311-319. 7. Bian, D. et al. (2006). The G12/13-RhoA signaling pathway contributes to efficient lysophosphatidic acid-stimulated cell migration. Oncogene 25:2234-2244.

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.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
 Online datasheet: <https://stage.aaabiotech.com/assay-kits/quicktiter/44512>