

cDNA synthesis kit

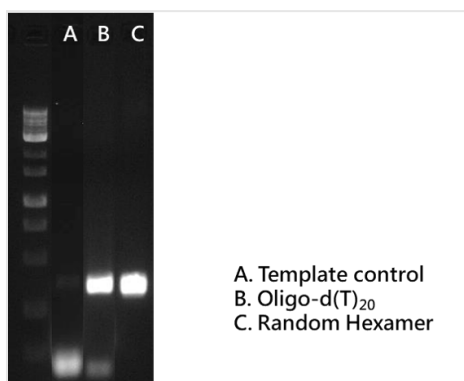
RScript cDNA Synthesis Kit

CATALOG #
AAA13627

PRODUCT SYNONYMS

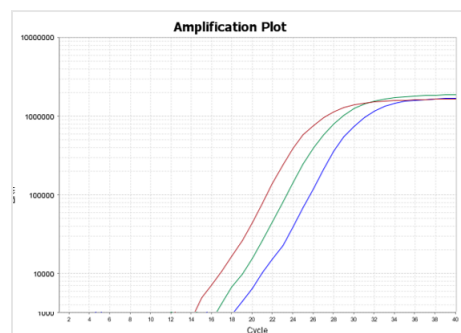
cDNA; RScript cDNA Synthesis Kit; RScript cDNA Synthesis Kit?50 Rxns; cDNA synthesis kit

IMAGES



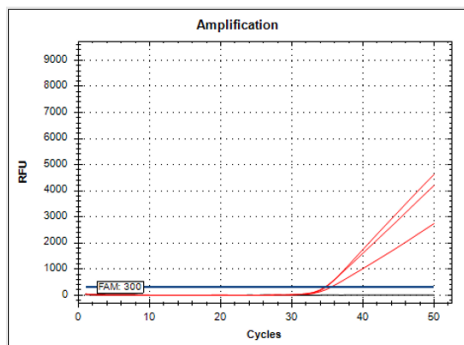
Application Data

Reverse transcription of a 330 bp fragment CCD1A RNA using RScript cDNA Synthesis Kit to carry this experiment. The PCR data shows that RScript cDNA Synthesis Kit have a stable and superior performance at higher temperatures.



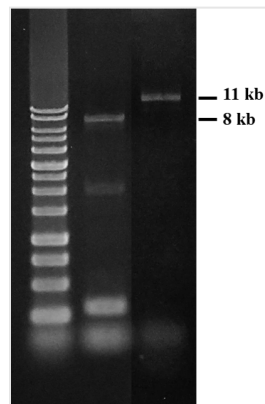
Application Data

Red: RScript reverse transcriptase #RT001-0050 Green: Improm-II #A3802 Blue: Superscript IV #18090010 Figure 5. Performing RT-qPCR with RScript reverse transcriptase :At a temperature of 55 °C, RScript reverse transcriptase exceeds performance demonstrating better efficiency and higher cDNA yields. RScript reverse transcriptase shows a stable and superior performance at 55 °C compared to other brands. Therefore RScript reverse transcriptase does not encounter significant higher Ct values compared to Improm II and SuperScript IV due to their low amounts of input cDNA.*Promega Improm-II #A3802 is a registered trademark of Promega, Thermo Superscript-III #18080093 and Superscript-IV #18090010 are registered trademarks of Thermo Scientific. The trademark holders are not affiliated and do not endorse these products.



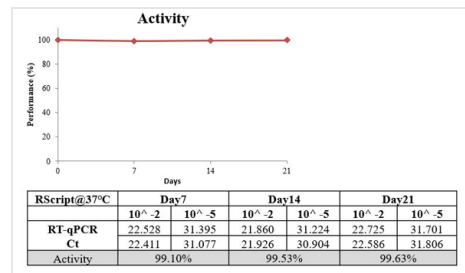
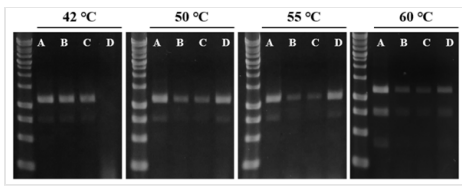
Application Data

Figure 4. Performance of One-Step RT-qPCR with RScript reverse transcriptase :To evaluate the RT performance for the COVID-19 fragments, the N1 gene with 100 copies per reaction was tested in the one-step RT-qPCR. Experiments proved to be feasible and effective (mean Ct : 34.88).* COVID-19 fragments were originally obtained from Twist Synthetic SARS-CoV-2 RNA Controls (# EPI_ISL_1662307).



Application Data

Figure 3. Elongation of RNA templates up to 11 kb in length :RScript reverse transcriptase was used in a reaction with a range of human bladder cancer cell lines - 5637 (HTB-9) RNA. The resulting synthesized cDNA (8 kb ,11kb) was followed by PCR and visualized on a 2% agarose gel. The molecular weight marker used was DNA Ladder 1kb #SDL-1000R.



Application Data

A: RScript reverse transcriptase #RT001-0050/ RT001-0250B: Promega Improm II
 #A3802C: Thermo SuperScript III #18080093D: SuperScript IV #18090010 Figure 2.
 Enhancement of the thermostability: Reverse transcription of a 1 kb fragment ARHGAP29 RNA using RScript reverse transcriptase or competitor reverse transcriptases were used to carry this experiment. Regardless of the variations in temperatures (42 -60 °C) RScript reverse transcriptase shows a stable and superior performance at higher temperatures of up to 60 °C compared to other brands. The molecular weight marker used was DNA Ladder 1kb #SDL-1000R

Application Data

Figure 1. Stability of RScript reverse transcriptase: The stability RT-qPCR data shows the performance of RScript reverse transcriptase is maintained without any significant alteration in performance at 37 °C after a period of 3 weeks (21 days), demonstrating its high resistance to temperature and time. The percentage of RScript reverse transcriptase activity was calculated by dividing values at each reaction temperature.

ADDITIONAL INFORMATION

Related Product Information for cDNA synthesis kit

Overcome the most challenging RNA structures over a wide temperature range.
 RScript cDNA Synthesis Kit - Engineered innovatively and specifically for both Research and test applications for meeting all your cDNA synthesis needs and for overcoming the most challenging secondary RNA structures over a wide temperature range-is the latest addition to our reverse transcription product boutique. The RScript cDNA Synthesis Kit contains our next-generation, engineered recombinant M-MLV reverse transcriptase, with improved thermostability, processivity, robustness, optimal cDNA yields, proprietary site mutations for reduced RNase H activity, and extended half-life, is the most versatile reverse transcriptase in the world for not only simply meeting the routine cDNA synthesis requirements but also enabling superior performance for even the most challenging RNA samples at hand.

Product Categories/Family for cDNA synthesis kit

Genomic Products; DNA Marker; DNA Stain; Agarose; PCR; qPCR; RNA Reagent; First-Strand cDNA synthesis kit; Reverse Transcription Kit; Complementary DNA Synthesis; Gene Expression Analysis; Cloning and Sequencing; Disease Research; Drug Discovery and Devel

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://www.aaabiotech.com/synthesis-kits/cdna/13627>