

AMPLIFICATION

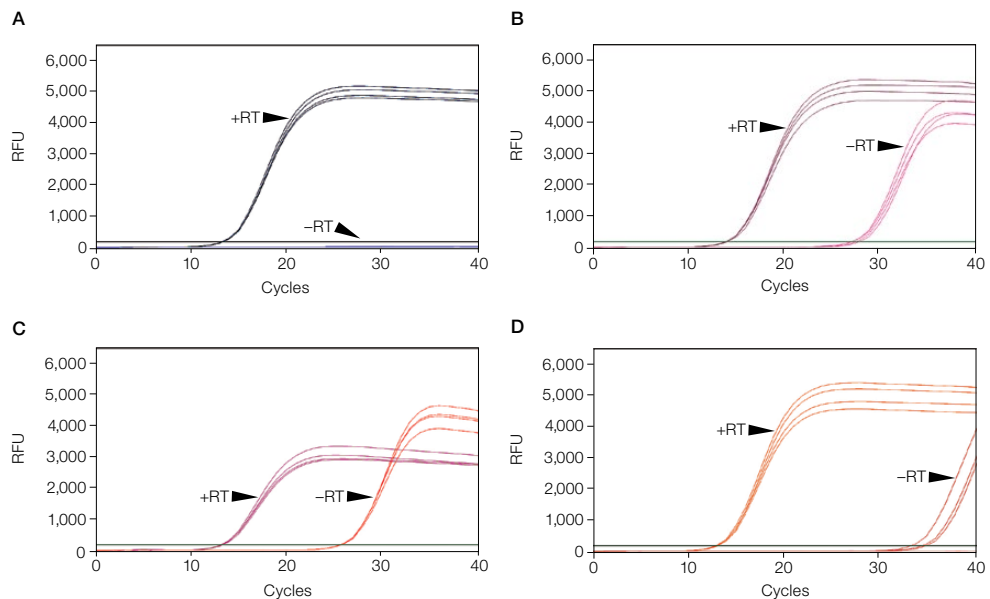
iScript™ gDNA Clear cDNA Synthesis Kit



gDNA-Free cDNA for Accurate Gene Expression Analysis

The iScript gDNA Clear cDNA Synthesis Kit integrates an effective DNase digestion step with fast and sensitive first-strand cDNA synthesis to generate accurate quantitative PCR (qPCR) data in an easy workflow. The kit provides:

- Effective genomic DNA (gDNA) removal
- Proprietary DNase buffer to maintain RNA integrity during gDNA removal
- Convenient all-in-one, ready-to-use reverse transcription (RT) supermix
- Ready-to-use no-RT control supermix for monitoring gDNA contamination



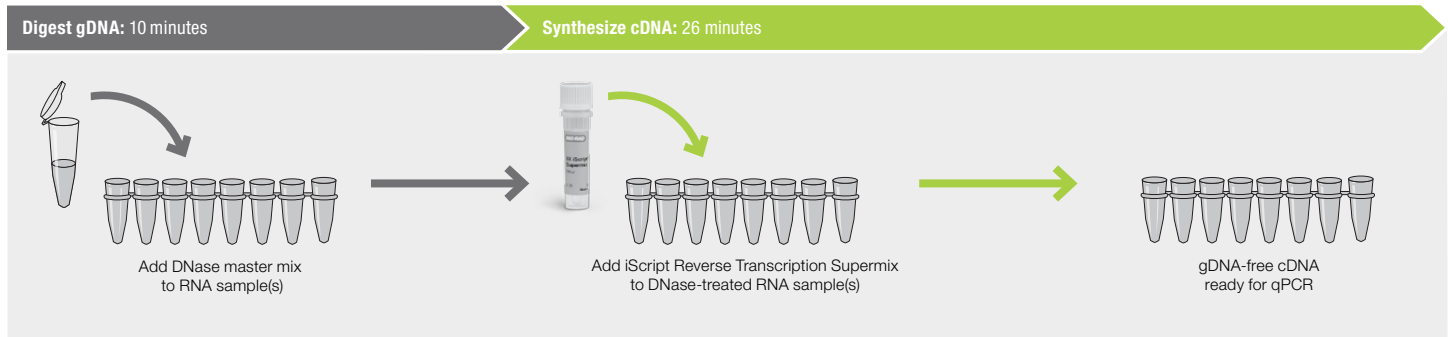
Effective and complete elimination of gDNA. HeLa RNA (1 µg) spiked in with 300 ng gDNA was used in a two-step real-time PCR reaction with (+RT) and without (-RT) reverse transcriptase. Four subsequent real-time PCR replicates were run on the CFX384™ Real-Time PCR Detection System using SsoAdvanced™ Universal SYBR® Green Supermix to detect both mRNA and gDNA with the human *TUBA* assay. The absence of amplification in -RT samples indicates effective removal of gDNA whereas the presence of amplification indicates residual gDNA even after a DNase step. **A**, no amplification was observed using Bio-Rad's iScript gDNA Clear cDNA Synthesis Kit, demonstrating complete removal of gDNA. Amplification was detected using **B**, QuantiTect Reverse Transcription Kit (QIAGEN); **C**, Maxima First Strand cDNA Synthesis Kit for RT-qPCR with dsDNase (Thermo Fisher Scientific); and **D**, PrimeScript RT Reagent Kit with gDNA Eraser (Takara Bio). This indicates a significant amount of gDNA. RFU, relative fluorescence units.

Visit bio-rad.com/web/iScriptgDNAClear for more information.

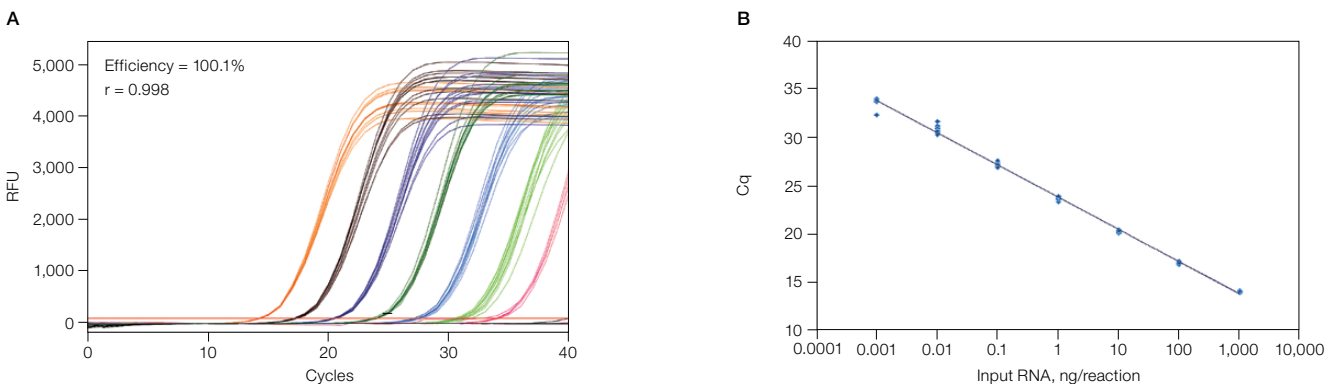


Streamlined Workflow

iScript gDNA Clear cDNA Synthesis Kit conveniently streamlines DNA removal and cDNA synthesis in an easy-to-follow protocol, resulting in cDNA free of genomic DNA in 36 minutes.



Workflow for DNA removal and cDNA synthesis.



Outstanding reproducibility and superior sensitivity. cDNA was generated with the iScript gDNA Clear cDNA Synthesis Kit using Jurkat RNA, which was serially diluted tenfold, ranging from 1 µg to 1 pg. Subsequent qPCR with an assay specific to human *B2M* mRNA and using SsoAdvanced™ Universal SYBR® Green Supermix was performed on 12 replicates per input RNA. **A–B**, results demonstrated outstanding reproducibility over 7 orders of magnitude. Cq, quantification cycle; RFU, relative fluorescence units.

Ordering Information

Catalog #	Description
1725034	iScript gDNA Clear cDNA Synthesis Kit , 25 x 20 µl reactions, includes 100 µl 5x supermix containing reverse transcriptase, RNase inhibitor, dNTPs, primers, MgCl ₂ , and stabilizers; 200 µl no-RT control supermix; 12.5 µl DNase; 150 µl DNase buffer; 1.5 ml nuclease-free water
1725035	iScript gDNA Clear cDNA Synthesis Kit , 100 x 20 µl reactions, includes 400 µl 5x supermix containing reverse transcriptase, RNase inhibitor, dNTPs, primers, MgCl ₂ , and stabilizers; 400 µl no-RT control supermix; 50 µl DNase; 150 µl DNase buffer; 1.5 ml nuclease-free water

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Bio-Rad's real-time thermal cyclers are covered by one or more of the following U.S. patents or their foreign counterparts owned by Eppendorf AG: U.S. Patent Numbers 6,767,512 and 7,074,367.

The use of SsoAdvanced Universal SYBR Green Supermix is covered by one or more of the following U.S. patents and corresponding patent claims outside the U.S.: 5,804,375; 5,994,056; and 6,171,785. The purchase of these products includes a limited, non-transferable immunity from suit under the foregoing patent claims for using only this amount of product for the purchaser's own internal research. No right under any other patent claim and no right to perform commercial services of any kind, including without limitation reporting the results of purchaser's activities for a fee or other commercial consideration, is conveyed expressly, by implication, or by estoppel. These products are for research use only. Diagnostic uses under Roche patents require a separate license from Roche. Further information on purchasing licenses may be obtained from the Director of Licensing, Applied Biosystems, 850 Lincoln Centre Drive, Foster City, California 94404, USA.

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