

AMPLIFICATION: PCR REAGENTS

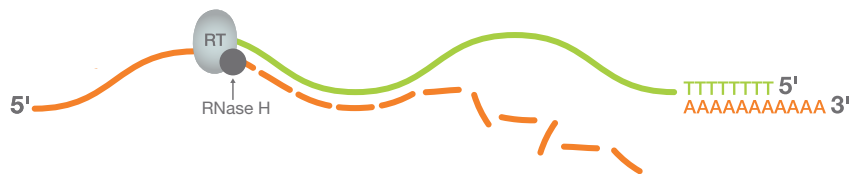
iScript™ Reverse Transcription Kits



Get the Most Out of Your cDNA Synthesis

Bio-Rad's iScript Reverse Transcription (RT) Kits provide fast and sensitive first-strand cDNA synthesis with high reproducibility. The combination of RNase H+ enhanced activity and RNase inhibitor yields reliable data for your experiments.

- Highly efficient cDNA synthesis with high-quality results
- RNase H+ for accurate representation of gene expression
- RNase inhibition prevents RNA degradation



RNase H function. RNase H works to degrade RNA that is hybridized to DNA. During cDNA synthesis, the RNase H domain of the Moloney murine leukemia virus (MMLV) reverse transcriptase degrades the template RNA as the cDNA is synthesized. This activity ensures the one-to-one conversion of RNA into cDNA molecules.

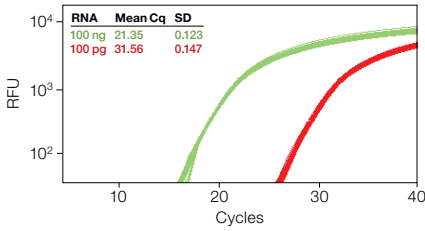
Visit bio-rad.com/web/myiScriptRTkit for more information.

Which iScript Is My iScript?

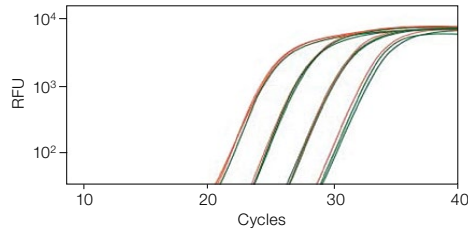
Feature	RECOMMENDED Minimum Reaction Setup Time	NEW Effective gDNA Removal before RT	Maximum RNA Input for High cDNA Yields	Flexible Priming Options	Reliable Value Solution
Product	iScript Reverse Transcription Supermix for RT-qPCR	iScript gDNA Clear cDNA Synthesis Kit	iScript Advanced cDNA Synthesis Kit for RT-qPCR	iScript Select cDNA Synthesis Kit	iScript cDNA Synthesis Kit
Applications	<ul style="list-style-type: none"> ▪ Gene expression ▪ RNA quantification 	<ul style="list-style-type: none"> ▪ Gene expression ▪ RNA quantification 	<ul style="list-style-type: none"> ▪ Gene expression ▪ RNA quantification 	<ul style="list-style-type: none"> ▪ Gene expression ▪ Cloning ▪ RNA quantification 	<ul style="list-style-type: none"> ▪ Gene expression ▪ RNA quantification
Total input RNA	1 µg–1 pg	1 µg–1 pg	7.5 µg–100 fg	1 µg–1 pg	1 µg–100 fg
Format	1 tube	3 tubes	2 tubes	5 tubes	2 tubes
Kit contents	<ul style="list-style-type: none"> ▪ 5x iScript RT Supermix ▪ No-RT control supermix 	<ul style="list-style-type: none"> ▪ 5x iScript RT Supermix ▪ No-RT control supermix ▪ DNase ▪ DNase buffer 	<ul style="list-style-type: none"> ▪ iScript Reverse Transcriptase ▪ 5x iScript Advanced Reaction Mix 	<ul style="list-style-type: none"> ▪ iScript Reverse Transcriptase ▪ 5x iScript Reaction Mix ▪ 3 priming options 	<ul style="list-style-type: none"> ▪ iScript Reverse Transcriptase ▪ 5x iScript Reaction Mix
Time to produce cDNA	26 min	36 min	21 min	40–90 min	26 min
RNase H+ activity	✓	✓	✓	✓	✓



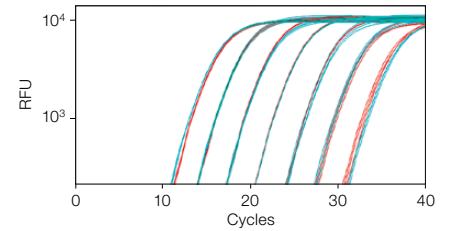
Unmatched Performance



Excellent data reproducibility. Forty-eight replicate cDNA synthesis reactions were prepared using the iScript Reverse Transcription Supermix for RT-qPCR and 100 ng (■) and 100 pg (■) of total RNA. A 160 bp fragment of the *PGK-1* gene was amplified from one-tenth of each of the resulting cDNA syntheses using SsoFast™ Probes Supermix on a CFX96™ Real-Time PCR Detection System. Low standard deviations across the replicate cDNA synthesis reactions demonstrate exceptional data reproducibility. Cq, quantification cycle; RFU, relative fluorescence units; SD, standard deviation (in Cq).



Unbiased representation of 3' and 5' transcript regions. Reverse transcription of 100, 10, 1, and 0.1 ng input RNA was performed with iScript Reverse Transcription Supermix for RT-qPCR. Primer pairs were designed to the 5' (■, ~60 bp) and 3' (■, ~70 bp) ends of the *MAP* gene, and qPCR was performed with one-tenth of the cDNA as input for the iTaq™ Universal SYBR® Green Supermix. There were no significant differences (<0.5 Cq difference) observed between the 5' and 3' assays. RFU, relative fluorescence units.



Broad linear dynamic range. Reverse transcription was performed from a tenfold dilution series of a human universal reference RNA (1 µg–1 pg) using the iScript cDNA Synthesis Kit (■) and the iScript Reverse Transcription Supermix for RT-qPCR (■). Amplification was performed in triplicate from one-tenth of the resulting cDNA using SsoAdvanced™ Universal SYBR® Green Supermix and the *GAPDH* PrimePCR™ Gene Expression Assay on a CFX96 Real-Time PCR Detection System. iScript cDNA Synthesis Kit: $R^2 = 0.999$, efficiency = 100.4%, and slope = -3.31 ; iScript Reverse Transcription Supermix for RT-qPCR: $R^2 = 0.999$, efficiency = 98.2%, and slope = -3.37 . RFU, relative fluorescence units.

Ordering Information

Kit Size	iScript Reverse Transcription Supermix for RT-qPCR	iScript gDNA Clear cDNA Synthesis Kit	iScript Advanced cDNA Synthesis Kit for RT-qPCR	iScript Select cDNA Synthesis Kit	iScript cDNA Synthesis Kit
25 x 20 µl reactions	1708840	1725034	1725037	1708896	1708890
100 x 20 µl reactions	1708841	1725035	1725038	1708897	1708891
500 x 20 µl reactions	N/A	N/A	N/A	1708897BUN	1708891BUN

Related Products

Reagents for Real-Time qPCR

Catalog #	Description	Catalog #	Description
1725270	SsoAdvanced™ Universal SYBR® Green Supermix	1725130	iTaq Universal Probes Supermix
1725280	SsoAdvanced Universal Probes Supermix	1725160	SsoAdvanced PreAmp Supermix
1725120	iTaq™ Universal SYBR® Green Supermix		

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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 iTaq, SsoAdvanced, and SsoFast Supermixes 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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Group

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