

Verso™ cDNA Kit

Description

Verso™ cDNA Kit supplies all the reagents to generate high yields of full-length cDNA from all RNA types.

- Verso™ Enzyme Mix includes Verso™ Reverse Transcriptase, which is active at high temperatures, is highly sensitive and can generate long cDNA strands. This mix also contains RNase inhibitor to protect RNA templates from degradation.
- 5X cDNA Synthesis Buffer, a proprietary reaction buffer which has been optimized to improve reverse transcription across a wide range of templates.
- Anchored oligo-dT primers and random hexamers provide flexible RNA priming methods for cDNA synthesis.
- RT Enhancer is included to remove contaminating DNA, eliminating the need for DNase I treatment.

Kit Contents

Vial	Pack Size (cap color)	
	A	B
Verso Enzyme Mix	40µl (black)	100µl (black)
5X cDNA synthesis Buffer	500µl (red)	500µl (red)
Anchored Oligo-dT (500 ng/µl)	40µl (orange)	100µl (orange)
Random Hexamer (400 ng/µl)	40µl (blue)	100µl (blue)
dNTP Mix (5mM each)	200µl (purple)	200µl (purple)
RT Enhancer	40µl (yellow)	100µl (yellow)

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INFORMATION

Verso™ Reverse Transcriptase

Verso™ is an RNA-dependent DNA polymerase with a significantly attenuated RNase H activity compared to *Reverse-iT*™. Verso™ can synthesize long cDNA strands, up to 11 kb, at a temperature range of 42°C to 57°C. The recommended amount of total RNA to use is between 1 pg and 1 µg.

RNA Priming

It is recommended that RNA primers be added to the final 1X reaction as follows: 1 µl of anchored oligo-dT (orange cap) or 1 µl of random hexamers (blue cap) or 1 µl of a blend of random hexamers and anchored oligo-dT 3:1 (v/v) or gene-specific primer (to final concentration of 0.5 – 2 µM). Anchored oligo dT is not suitable for use with most prokaryotic RNA. In these cases, random hexamers or gene-specific primers are recommended.

RT Enhancer

RT Enhancer is included to remove contaminating DNA, eliminating the need for DNase I treatment. It degrades double stranded DNA during the transcription of RNA and is inactivated after 2 minutes at 95°C.

Storage Conditions

Store at -20°C until ready for use. Verso™ cDNA Kit is stable for a minimum of 12 months. Avoid repeated freeze thawing. Shipped on ice within the UK and on dry ice for international and within the US.

Additional Info

- The use of disposable gloves, RNase and DNase free filter tips and plastics is recommended.
- If DNase I treatment has been performed, RT Enhancer is not required.

Tips before use

Thaw the reagents on ice. Mix and spin down the solutions before use to recover the maximum amount. **Do not vortex the Verso Enzyme Mix.** Briefly centrifuge to avoid bubbles within the wells. Always include a no template control (NTC) and a no enzyme control (NEC).

PROTOCOL

Example of reaction mix preparation.

The volume of each component is for a **20 µl final reaction**.

		Volume	Final Concentration
Reaction Mix	5X cDNA synthesis buffer	4 µl	1X
	dNTP Mix	2 µl	500 µM each
	RNA Primer ^a	1 µl	
	RT Enhancer	1 µl	
	Verso Enzyme Mix	1 µl	
	Water (PCR grade) ^b	variable	
	Template (RNA) ^{c, d}	1 - 5 µl	1 ng
	Total volume	20 µl	

Example of a reverse transcription cycling program:

	Temp.	Time	Number of cycles
cDNA Synthesis ^e	42°C	30 min	1 cycle
Inactivation	95°C	2 min	1 cycle

Store samples at -20°C.

Notes

a – For more information, please refer to the “RNA Priming” section on page 2.

b – The volume of the total reaction should be completed up to 20 µl with water.

c – To remove secondary structure, heat at 70°C for 5 minutes and place immediately on ice.

d – The amount of RNA added as a template should be between 1 µg and 1 µg.

e – Depending on the length of template and degree of secondary structure, the efficiency of the first strand synthesis maybe improved by optimizing temperature and time (42-57°C for 5-60 minutes).

Quality control

Verso™ cDNA Kit is tested functionally for use in RT-PCR.

Ordering Information

AB-1453/A	Verso™ cDNA Kit	40 x 20 µl rxns
AB-1453/B	Verso™ cDNA Kit	100 x 20 µl rxns

Related Products

Cat. No.	Description	Quantity
AB-2400	ABgene® SuperPlate™ Semi-Skirted 96-Well PCR Plate	25 plates
AB-2400/W	ABgene® SuperPlate™ Semi-Skirted 96-Well PCR Plate, white	25 plates
AB-2800	ABgene® SuperPlate™ Skirted 96-Well PCR Plate	25 plates
AB-2800/W	ABgene® SuperPlate™ Skirted 96-Well PCR Plate, White	25 plates
AB-0745	Easy Peel (heat seal)	100 sheets
AB-0626	Adhesive PCR Foil	100 sheets
AB-0558	Adhesive PCR Film	100 sheets
AB-0386	Strips of 8 Domed Caps	120 strips
AB-0783	Strips of 8 Flat Caps	120 strips

Troubleshooting

For troubleshooting, see www.abgene.com/troubleshoot.asp or contact Thermo Fisher Scientific (ABgene) TechSupport at abgene.techsupport@thermofisher.com

UK TechSupport, call +44 (0) 1372 840 410

For all other regions, please contact your local Thermo Fisher Scientific (ABgene) office / distributor.

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