LaboPass™ cDNA Synthesis Kit

Cat. No CMRTK001 50 reactions
Cat. No CMRTK002 100 reactions

Lot No.

Note: For laboratory use only

Description

- The LaboPass™ cDNA synthesis kit is optimized for efficient and reproducible synthesizing first-strand cDNA from total RNA or poly(A) RNA. This kit provides the all components necessary for synthesis of cDNA including reverse transcriptase, dNTPs, reaction buffer, RNase inhibitor, primer and nuclease-free water.
- Included M-MuLV Reverse Transcriptase in this kit is a recombinant form of the reverse transcriptase from the Moloney Murine Leukemia Virus (M-MuLV) which possesses enhanced cDNA synthesis activity and reduced RNase H activity. Reduction of RNase H activity enables higher yield of full-length cDNA transcripts and increased thermostability.

Contents

	50 rxn	100 rxn
• Reverse Transcriptase (200 U/μl)	50 μl	100 μl
• 5X RT Buffer	200 μl	400 μl
• dNTP (each 10 mM)	50 μl	100 μl
• RNase inhibitor (40 U/μl)	50 μl	100 μl
• Oligo $(dT)_{18}$ (100 μM)	50 μl	100 μl
• Random hexamer (0.2 μg/μl)	50 μl	100 μl
• Nuclease-free water	1 ml	1.5 ml

Store at -20°C

Applications

- cDNA synthesis for RT-PCR and RT-qPCR
- cDNA synthesis for Cloning

Storage and Stability

LaboPass™ cDNA synthesis kit is stable for 1 year when stored at -20°C.

Quality Control

Each lot of Reverse Transcriptase, reaction buffer, RNase inhibitor and dNTPs is tested for contamination such as nuclease.

General cDNA synthesis protocol

1. Add the following components into a sterile, nuclease-free tube for each 20 μl reaction :

• RNA	1-8 μl	0.1 ng ~ 5 μg total RNA or 1 ng ~ 500 ng poly(A) RNA
• Oligo (dT) or Random primer	1 μl	
• dNTP (each 10 mM)	1 μl	
• Nuclease-free water	Up to 10 μl	

2. Heat for 5 min at 65°C, quick chill on ice and briefly spin-down.
3. Add the following components to the above mixture and gently mix :

• 5X RT reaction buffer	4 μl
• RNase inhibitor (40 U/μl)	1 μl
• M-MuLV Reverse Transcriptase	1 μl
• Nuclease-free water	Up to 10 μl

4. Incubate at 42°C, for 30 ~ 60 min.
5. Inactivate enzyme by heating at 70°C for 15 min.
6. Store at -20°C until ready for use.