

Catalog	Description
HL - RTE - 5KU	5000Units
HL - RTE - 10KU	10000Units
HL - RTE - 20KU	20000Units

Store at - 20°C
PI/HL -RTE

Product description

Moloney Murine Leukemia Virus Reverse Transcriptase (MMLV RT) is an RNA-dependent DNA polymerase that uses single-stranded DNA or RNA as a template. The enzyme has RNase H activity and functions optimally at 42°C. The Reverse Transcriptase enzyme lacks 5' → 3' exonuclease activity and is used for cDNA synthesis.

Source

Modified synthetic Reverse transcriptase gene from Moloney Murine Leukemia Virus is expressed and purified in *E. coli* strain.

Reagents Supplied

- MMLV RT Enzyme (100U/μl)
- 5X First Strand RT Reaction Buffer (1ml)
- 100mM DTT (200μl)

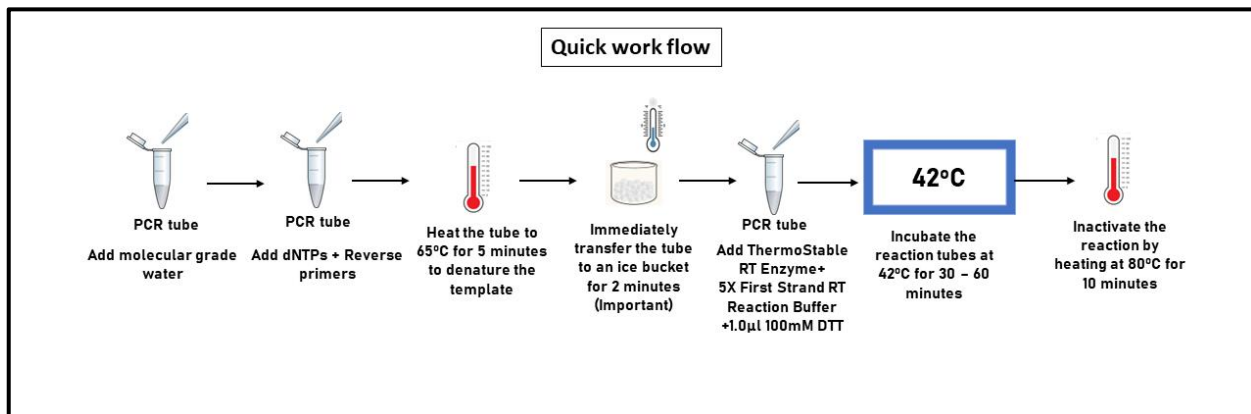
Storage conditions

The recommended storage condition is -20°C for the supplied components

Assay Conditions

First-Strand cDNA Synthesis

Add the following components to a nuclease-free microcentrifuge tube




Reaction set up

Step - 1

Components	Volume (μL)
Extracted RNA (1 ng-5 μg of RNA or 1-500 ng of mRNA)	Variable (User-defined)
50-250 ng Random primers/10 pmol Specific primer/200-500 ng oligo-dT	Variable (User-defined)
dNTP Mix (10Mm each)	1.0
Molecular Grade Water	Make up to 14μl

Heat the mixture to 65°C for 5 min on the heating block and quick chill on ice for 2 min

 Make sure the vial is not very hot while adding the next step of components. Quick spin the reaction tube and add the following components to the tube

Step-2	
Components	Volume (μL)
5X First Strand RT Reaction Buffer	4.0
MMLV RT Enzyme	1.0
100mM DTT	1.0
Total volume	20

Incubate for 30–60 min at 42°C.

Inactivate the reaction by heating at 70°C for 10min.

The cDNA can now be used as a template for amplification with End Point or Real-Time PCR.

Applications

- cDNA libraries generation for cloning
- End-point and quantitative RT-polymerase chain reaction (PCR)
- RACE PCR
- Microarray analysis
- Amplification of RNA

Other PCR products from Huwel LifeSciences that you may be interested


S.No.	Product description	Catalogue No.
1.	Rcore qPCR Mix (2X)	HL-RCqPM2X
2.	Rcore qPCR Mix (4X)	HL-RCqPM4X
3.	ThermoStable RT Enzyme (100U/μl)	HL - TSRT - 5KU - 5000Units HL - TSRT - 10KU - 10000Units

References

1. Roth, M.J., Tanese, N. and Goff, S.P. (1985) Purification and characterization of murine retroviral reverse transcriptase expressed in Escherichia coli. J. Biol. Chem. 260, 9326–35.
2. Sambrook, J., Fritsch, E.F. and Maniatis, T. (1989) In Molecular Cloning: A Laboratory Manual, Cold Spring Harbor Laboratory, Cold Spring Harbor, New York, 8.64

For further information on protocols and details, please contact our technical support:

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