KIAGENE FANAVAR

M-MuLV Reverse Transcriptase

Cat. No:
FPLF011.0025
FPLF011.0050

Contents:

Components	25 RXN	50 RXN
M-MuLV Reverse Transcriptase Enzyme aliquoted from Thermo Fisher Co.	25 µl	50 µl
5X RT Buffer	100 µl	200 µl

Description:

This is a genetically modified RNA-dependent DNA polymerase requiring a DNA primer and an RNA template to synthesize a complementary DNA strand. Thermo-resistant H Minus M-MuLV Reverse Transcriptase has no RNase H activity. Therefore, degradation of RNA does not occur during first-strand cDNA synthesis, resulting in higher yields of full-length cDNA from long templates compared to other reverse transcriptases. Thermo-resistant H Minus M -MuLV Reverse Transcriptase maintains activity over a wide temperature range (42-52°C) which makes it an ideal tool for reverse transcription of RNAs having a high degree of secondary structure.

Kit storage:

This kit should be stored at -20 °C. Under this condition, reagents are stable for one year from the date of production.

Protocol:

1) Mix the template RNA (total RNA or Poly (A) mRNA) and the primer in an RNase-free tube as below table. Optimal reaction conditions, such as the amount of RNA and primers, may vary and must be individually determined. Random hexamer or oligo (dT) 16 or specific primers could be used as primers.

The concentration of template RNA and primer

Template RNA	Total RNA or Poly(A)+ mRNA	10 ng~5 µg 5 ng~0.5 µg
Primer	Oligo (dT)16 or Random hexamer	1-2 µL 1 µL
DEPC-treated water		Up to 13 µL*

2) Incubate the mixture at 65 ºC for 5 min chill on crash ice and add the reagent as follows:

* If you are using an RNase inhibitor, bring the upper solution to 12 µL and add 1 µL RNase inhibitor 20 U/ul

Component	Volume (µL)
5X RT Buffer	4
10 mM dNTP Mix	2
Thermo-Resistant RT	1

3) Mix by pipetting gently up and down (total reaction volume 20 µL).
4) Incubate for 10 min at 25 ºC (omit this for Oligo dt).
5) Incubate for 60 min at 47 ºC.
6) Stop the reaction by heating at 70 ºC for 10 minutes. Chill on ice.

Disclaimers and Addresses:

This product is for **Research use only** and should only be used by trained professionals.