HiFiScript gDNA Removal

RT MasterMix

Item No. H665909 (100 rxns)
Storage condition: -20℃

Product content

individual parts making up a compound	H665909 100 rxns
10×gDNA Remover Mix	100 μl
5× HiFiScript RT MasterMix	400 μl
RNase-Free Water	1.5 ml

Product Introduction

This is a kit for removing genomic DNA for reverse transcription, which can be removed in 2 minutes at 42° C. At the same time, the reverse transcription reagent contains a component that inhibits gDNA Remover, so that cDNA can be synthesized by reverse transcription directly from the gDNA Remover-treated sample.
This kit is equipped with a new high-efficiency reverse transcriptase, HiFiScript, with a novel mutation site that dramatically improves the transcriptional activity of the enzyme, while the first strand of cDNA can be synthesized in 15 minutes. Meanwhile, the first strand of cDNA can be synthesized in only 15 minutes. 5× HifiScript RT MasterMix is a premix for reverse transcription, which contains all the reagents required for reverse transcription, making the operation convenient and fast.

Product Features

1. Rapid genome removal: gDNA Remover with genomic DNA removal removes genomic DNA in just 2 minutes.

2. Rapid reverse transcription: cDNA first strand synthesis can be completed in 15 minutes.
3. Convenient and quick: ready-to-use reverse transcription Mix, easy to operate.
4. High sensitivity: cDNA first strand can be synthesized using pg-level total RNA or mRNA templates.
5. Highly efficient reverse transcription: Novel mutation sites dramatically increase enzyme activity, resulting in higher yields of cDNA.

Matters needing attention1

1. During operation, RNase contamination should be avoided to prevent RNA degradation or cross-contamination in the experiment. It is recommended that operators wear masks and disposable gloves and change the gloves frequently, and use specialized instruments and consumables.
2. Experiments try to use disposable plastic containers, if you use glassware, should use 0.1% DEPC (diethyl 1.1 ester pyrocarbonate) aqueous solution at 37 ° C for 12 hours, and autoclaved at 120 ° C for 30 minutes after use, or glassware at 180 ° C for 60 minutes under dry heat sterilization after use. Sterile water used in the experiment should be treated with 0.1% DEPC and then autoclaved.
3. The reverse transcription system is prepared on ice to prevent degradation of RNA. Store the kit enzymes at -20 °C as soon as possible after use and avoid repeated freezing and thawing.

Usage

Thaw template RNA on ice; place kit components on ice immediately after thawing at room temperature. Mix each solution by vortexing and shaking before use and centrifuge briefly before use.

一、Genomic DNA removal reaction

1. Prepare the reaction system according to the following table on ice in a total volume of 10 μl. To ensure the accuracy of the reaction solution, prepare the premixed system in the amount of reaction number + 2, then dispense it into each reaction tube, and finally add the RNA samples.

reagents	10 μl reaction system
10×gDNA Remover Mix	1μl
RNA Template¹	10 pg-1 μg
RNase-Free Water	up to 10 μl

Note: 1) If the amount of total RNA is greater than 1 μg, scale up the reaction system proportionally.

2. Mix by vortex shaking and centrifuge briefly so that the solution on the walls of the tube collects at the bottom.

3. Incubate at 42° C for 2 minutes (this can be extended to 30 minutes for room temperature reactions).

4. At the end of the reaction, centrifuge briefly and cool on ice.

二、reverse transcription reaction

1. Prepare the reaction system on ice according to the following table. In order to ensure the accuracy of the reaction solution configuration, first prepare a premixed solution according to the number of reactions + 2, and then dispense 10 μl into each reaction tube, take 10 μl of the prepared premixed solution and add it to the reaction tube of step 1 where the de-etiolation has been completed.

reagents	20 μl reaction system
Step 1 Reaction solution	10μl
5× HiFiScript RTMaster Mix	40μl
RNase-Free Water	60μl

2. Mix well and centrifuge briefly so that the solution on the walls of the tube collects at the bottom.

3. cDNA synthesis reaction conditions: incubation at 37℃ for 15 minutes, 85℃ for 5 seconds.

4. At the end of the reaction, centrifuge briefly and place on ice before proceeding with subsequent reactions, or at -20° C if prolonged storage is required.