Product Information

UEIris RT mix with DNase (All-in-One)

Catalog Number: R2020

Product Size: 20 μL×50T, 20 μL×100T

Contents:

Component	50T	100T
UEIris 5× RT All-in-One Mix	200 μL	2×200 μL
DNase	50 μL	100 μL
RNase-free water	1 mL	2×1 mL

* UEIris 5× RT All-in-One Mix contains the following components: Reverse transcriptase, RNase inhibitor, dNTPs, buffer, Oligo $(dT)_{20}$VN and random primers.

Storage

Store at -20°C. When stored as directed, product is stable for at least 12 months.

Description

UEIris RT mix with DNase (All-in-One) is a simpler system for synthesizing RNA from cDNA. It contains all the reagents required for the first-strand cDNA synthesis, and only needs to add RNA template and water for reverse transcription. The system can amplify RNA targets up to 12 kb in length, and is compatible with multiplex RT-PCR.

The product uses a high-efficiency DNase, which is thermally sensitive and can be quickly and irreversibly inactivated under high temperature. Therefore, only one sample loading is needed to remove genomic DNA contamination and reverse transcription reaction in the same tube. Compared with DNase I to remove genomic DNA contamination, no additional EDTA is needed for inactivation, which not only reduces damage to the RNA template, reduces the risk of RNase contamination, but also saves experimental time.

Protocol

1. Mix the following components in a nuclease-free, thin-walled PCR tube on ice：

Component	Volume
UEIris 5× RT All-in-One Mix	4 μL
DNase	1 μL
Template RNA	50 ng - 1 μg
RNase-free water	to 20 μL

2. Mix gently and ensure all the components are at the bottom of the amplifcation tube；

3. Place the reaction in the PCR instrument and run program following the procedure below:

37℃, 2 min. Remove genomic DNA contamination;

55℃, 15 min;

85℃, 5 min. Stop the reactions.

4. The obtained product quickly placed on ice or immediately stored at -20 ° C for subsequent experiments.

Notes

1. The purity and integrity of the RNA template is an important factor affecting the reverse transcription.

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2. If the subsequent experiment is PCR, the amount of reverse transcription product should not exceed 1/10 of the volume of the PCR system. For a 20 μL PCR system, the amount of reverse transcription product should not exceed 2 μL.

3. The mix contains Oligo (dT) $_{20}$VN and random primers. It is not only suitable for eukaryotic mRNAs containing Poly (A) structure, but also for prokaryotic RNA without Poly (A) structure, eukaryotic rRNA, and tRNAs. The master mix is not suitable for small RNA templates such as miRNA.

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