PrecisionTM DNase

Instructions for use of Primerdesign Precision[™] DNase for effective removal of contaminating genomic DNA from RNA

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Introduction

The Precision DNase kit is a highly specific double stranded DNase with no activity against either RNA or cDNA. The Precision DNase enzyme is heat labile at a much lower temperature than traditional DNase enzymes. Our enzyme can be inactivated by a short incubation at just 55°C. Heat inactivation above 55°C, as common for other enzymes, can cause Mg mediated degradation of RNA. This simple inactivation method ensures that RNA is both protected from degradation and prevents the need for additional reagents to stop the reaction that may affect sample quality.

The buffer has no inhibitory effect on Reverse transcription or downstream real time PCR.

Precision DNase treatment is quick, simple, and highly effective.

Kit Contents

- 10X DNase reaction buffer 550µl (BLACK TOP)
- Precision DNase 55μl (WHITE TOP)

Reagents and Equipment to Be Supplied by User

- Primerdesign Precision nanoscript2 Reverse Transcription kits
- Pipettors and Tips
- Vortex
- Centrifuge

Kit Storage

The Primerdesign PrecisionTM DNase kit must be stored at -20°C and is stable for 6 months from the date of purchase.

Suitable Sample Material

This product is designed to work on RNA extracted from any source and is compatible with the elution buffer of all leading extraction kits. The kit is also suitable for RNA that has been eluted in water.

Licensing Agreement and Limitations of Use

This product is sold for Research Use Only. Purchase of Primerdesign kits does not include or provide licence with respect to any patents owned by any other parties.

Primerdesign Ltd Satisfaction Guarantee

Primerdesign takes pride in the quality of all of our products. Should this product fail to perform satisfactorily when used according to the protocols in this manual, Primerdesign will replace the item free of charge.

Quality Control

As part of our ISO9001 and ISO13485 quality assurance systems, all Primerdesign products are monitored to ensure the highest levels of performance and reliability.

Bench-side Protocol

- **1. Add 10X Precision DNase reaction buffer directly to your RNA**The amount added will vary depending on the volume of your RNA. Add 5μl of buffer for every 50μl of RNA.
- 2. Add 1 μ I of Precision DNase enzyme to each reaction. 1 μ I of enzyme will successfully eliminate DNA from up to 100 μ I of RNA solution.
- 3. Incubate for 10 minutes at 30°C. (DNase Treatment)
 Where necessary this can be extended to 30 minutes without any degradation of RNA.
- 4. Incubate for 5 minutes at 55°C. (DNase inactivation)
- 5. Proceed to Reverse Transcription step or store DNase treated RNA at < -20°C for later use