Hangzhou Simgen Biotechnology Co., Ltd.
5th floor, Building No. 4, No. 8 Xiyuan 1st Road, Hangzhou, P. R. China.
Pc: 310030 Tel: +86-571-87381295 Fax: +86-571-87381295

On-Column DNase I Digestion Kit Instructions

Composition

On-Column DNase I Digestion Kit	5 Preps	50 Preps
Cat. No.	8010005	8010050
DNase I	28 µl	270 µl
Buffer RDD	250 µl	2.5 ml
Buffer WA (concentrate)	1.9 ml	12 ml
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Storage

DNase I should be stored at -20℃. Buffer RDD and Buffer WA can be stored at room temperature (0~30℃) for 2 years.

Technical Support

R&D Department, Hangzhou Simgen Biotechnology Co., Ltd. E-mail: technical@simgen.cn, Tel: 400-0099-857.

Introduction

Source of this product: 31 kd recombinant DNase I protein expressed by *E. coli*, free of other endonucleases and exonucleases, and RNase-free.

DNase I, also known as Deoxyribonuclease I, is an endonuclease that digests single- or double-stranded DNA to produce single-stranded or double-stranded oligodeoxynucleotides.

This product is effective in removing DNA and can be used with Simgen's spin column RNA series kits.

Purity

Free of other endonucleases and exonucleases, RNase-free.

Preparation Before Use

Add absolute ethanol to Buffer WA according to the instructions on the label of the reagent bottle and tick the box on the label to mark "Ethanol Added".

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Protocol

The kit provides a special Buffer RDD that can be used with spin column series RNA extraction kits to effectively remove DNA during adsorption on the spin column membrane, and DNase I is removed during subsequent elution step.

* Note: Normal DNase Buffer may not be suitable for digestion of DNA during adsorption on the column, and the use of other buffers may affect the binding of RNA to the membrane, resulting in a decrease in RNA yield.

1. **DNase I incubate solution: 5 µl DNase I and 45 µl Buffer RDD per sample, directly gently pipette several times to mix well.**
2. **Insert step 3 after the Buffer WA wash step of the spin column RNA series kit. The Buffer WA wash step of the Simgen spin column series RNA extraction kit is generally described as follows: "Discard the filtrate in the 2 ml collection tube, place the spin column back into the 2 ml collection tube, add 500 µl Buffer WA to the spin column, close the lid, and centrifuge (the specific speed and time are set according to the protocol of the kit used)".**
3. **Discard the filtrate, place the spin column back into the 2 ml collection tube, and add 50 µl DNase I incubate solution prepared in step 1 to the spin column center and incubate at room temperature (20-30℃) for 15 min.**
4. **Add 500 µl Buffer WA to the spin column, close the lid, and centrifuge at 12000 rpmfor 30 sec.**

* Ensure that absolute ethanol has been added to Buffer WA.

5. **This was followed by a Buffer WBR wash step in the spin column RNA series kit. The Buffer WBR wash step of the Simgen spin column series RNA extraction kit is generally described as follows: "Discard the filtrate, place the spin column back into the 2 ml collection tube, and add 600 µl Buffer WBR to the spin column". Continue to follow the instructions of the spin column RNA series kit until the RNA is finally eluted.**