Transiom™ Extracted DNA/ PCR Purification kit

(Electrophoresis free purification)

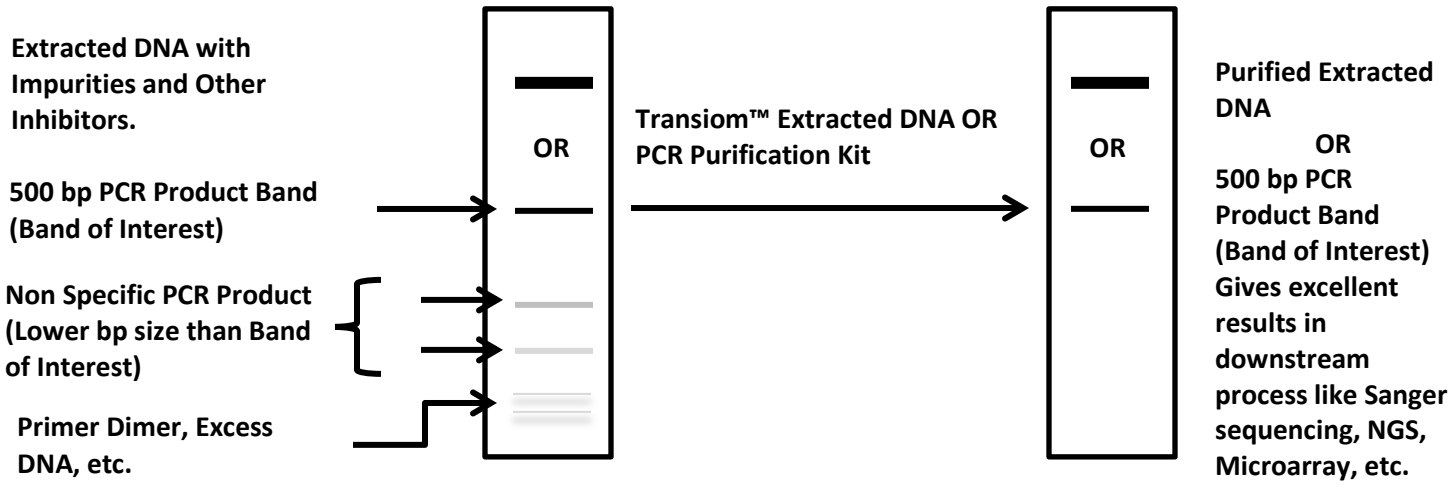
Cat No: TDPP-50

Contents

Introduction

Transiom™ Extracted DNA/ PCR Purification kit is designed for rapid purification of Extracted DNA or single-stranded or double-stranded PCR amplification products from other components in the reactions, such as excess primers, nucleotides, DNA polymerase, oil and salts. DNA fragments from 100 bp to 20 kb and Genomic DNA can be purified using the TransPure™ column with over 80-95 % recovery. Eluted DNA/ PCR product can be used in downstream process like Sanger Sequencing, microarray, NGS, Hybridization, etc. to save extra cost of mix data in sequencing process and costly reagents.

Note: This kit is intended to use intense Extracted DNA or PCR Product Band of Interest. It can efficiently remove excess Primers, Nucleotides, DNA polymerase, Oil, Salts and non-specific PCR bands below the base pair range of Band of Interest. I.e. if your PCR band of interest is 500 base pairs and you are getting lower small lightly intense PCR product bands. This kit is use for that but this Kit can't use for higher size PCR bands. For Higher band purification you must use Transiom™ Gel DNA/PCR extraction Kit.



Overview

If using the Transiom™ Extracted DNA/ PCR Purification Kit for the first time, please read this booklet to become familiar with the procedures. The Desired Extracted DNA or PCR Product is bound to the column while other impurities are removed by wash buffer. The purified Extracted DNA or PCR product is suitable for downstream applications such as endonuclease digestion, NGS, Microarray, thermal cycle amplification, and hybridization techniques.

Storage and Stability

All components can be stored at room temperature. All kit components are stable up to 24 months.

Kit Contents

Product	TPPK-50	Storage
Preps	50	-
Buffer TCA	25 ml	RT
Buffer TPP	20 ml	RT
Buffer TPW	10 ml	RT
Elution Buffer	10 ml	RT
TransPure™ Spin Columns	50	RT
Collection tubes	50	RT
User Manual	1	-

Before Starting

Prepare all components and get all necessary materials ready by examining this instruction booklet and become familiar with each steps.

Important

- Add **40 ml 100% ethanol** to **Buffer TPW** before use.
- **Buffer TPP** may form precipitates under cool ambient condition. Warm up the buffer at 50°C-60°C to dissolve before use.

Materials Supplied by users

- Tabletop microcentrifuge and 1.5 ml microtubes.
- 55-60 °C water bath.
- 98~100% ethanol.

Safety Information

Buffer TPP contains acidic acid and chaotropic salts, which may form reactive compounds when combines with bleach. Do not add bleach or acidic solutions directly to the preparation waste.

Perform all steps including centrifugation at room temperature.

Extracted DNA /PCR Purification Protocol

1. Place an empty column in provided 2 ml collection tube.

2. Add 450 µl of Buffer TCA into the empty column and centrifuge it at 12,000 for 1 minute. Discard the flow through liquid.

3. Add 5 volume of Buffer TPP to 1 volume of Extracted DNA/PCR reaction mixture and mix it by pipetting or vortexing for 30 seconds. Transfer the mixture to the DNA spin column. Incubate at room temperature for 5 min.

Note: i.e. if you are using 30 µl Extracted DNA/PCR reaction mixture add 150 µl Buffer TPP. Mix it well with Buffer TPP.

4. Centrifuge it at 10,000 rpm for 2 minute. Discard the flow through and put the column back to the collection tube.

5. Add 650 µl Buffer TPW to the column and centrifuge at 10,000 rpm for 1 minute at room temperature. Discard the flow through and insert the column, back to the collection tube. Repeat this step again.

Note: Ensure that ethanol has been added to Buffer TPW as instructed.

6. Centrifuge the empty DNA column at 10,000 rpm for 2 minute to dry the ethanol residue in the matrix.

Note: The residual ethanol will be removed more efficiently with the column lid open during centrifugation.

7. Place the column into a clean 1.5 ml microfuge tube and add 15 µl /20 µl /25 µl /30 µl pre-warmed (70-80°C) Elution Buffer to the center of the column. (Note: Add Elution volume as per initial Extracted DNA/ PCR reaction volume i.e. if you are using 25 µl Extracted DNA/ PCR Mixture for purification you must elute it in 20 µl Elution Buffer). Incubate at room temperature for 5 minute. Centrifuge at 10,000 rpm for 1 minute to elute the DNA/ PCR Product. Reload the eluted DNA/PCR Product solution to the column for a second elution in same TransPure™ spin Column. Incubate at room temperature for 2 minute. Centrifuge at 10,000 rpm for 1 minute to elute the DNA/ PCR Product.

Note: Pre-warm elution buffer at 70-80°C and incubate the column at 60°C for 5 minute after adding Elution Buffer will increase the DNA/ PCR Product yield.

Note: The first elution normally yields 60-70% of the DNA/PCR Product bound. Reload the eluted DNA/ PCR Product solution to the column for a second elution will yield another 20% of the DNA/ PCR Product that makes the total yield up to 90%.

Note: Elution volume may vary as per downstream process.

8. Discard the Column, and save elute. Do not reuse binding columns or collection tubes.

Troubleshooting Guide:

Problems	Possible reason /Solution
Low DNA Yield	**Poor elution (**Repeat elution or Increase elution volume of PCR product) or **Elution Volume is Higher than initial Extracted DNA/PCR Product volume.** Incubation of column at 60°C for 5 min with elution buffer may increase yields.)
Low DNA Yield	**Improper washing** (Wash buffer concentrate must be diluted with ethanol)

Limited Use and Warranty

This product is intended for in vitro research use only. Transiom guarantees the performance of all products in the manner described in our product literature. We reserve the right to change, alter, or modify any product to enhance its performance and design. No other warranties of any kind express or implied, including, without limitation, implied warranties of merchantability or fitness for a particular purpose, are provided by Transiom, Transiom sole obligation and purchaser's exclusive remedy for breach of this warranty shall be, at the option of Transiom, to replace the products, Transiom shall have no liability for any direct, indirect, consequential, or incidental damage arising out of the use, the results of use, or the inability to use it product. This product is warranted to perform as described in its labeling and in Transiom's literature when used in accordance with instructions. If a Transiom product does not meet your expectations, simply call Transiom Technical Support Team.

For technical support or for more product information, please visit our website at www.transiom.co.in