GEL DNA RECOVERY SYSTEM
PROTOCOL & TECHNICAL BULLETIN

BenevBio

TABLE OF CONTENTS

Kit Contents 2

Precautions 3

Warranty & Limitations 4

Customer Care Information 5

Storage & Stability 6

Additional Items Required 6

Introduction & Description 7

Quick Protocol 8

Protocol 9

Troubleshooting 10

Related Products & Ordering Info 11

KIT CONTENTS

50 RXN Kit (GDR0001S):

ITEM	CATALOG #	50 RXN
DNA Extraction Buffer	GDR0002	1 vial/25ml
Wash Buffer Concentrate	GDR0004	1 vial/6ml
NucleoPur™ Columns	GDR0006	50 columns
Collection Tubes	CT0050	50 tubes

250 RXN Kit (GDR0001L):

ITEM	CATALOG #	250 RXN
DNA Extraction Buffer	GDR0003	1 vial/125ml
Wash Buffer Concentrate	GDR0005	1 vial/24ml
NucleoPur™ Columns	GDR0007	250 columns
Collection Tubes	CT0250	250 tubes

PRECAUTIONS

THIS PRODUCT IS NOT INTENDED OR APPROVED FOR USE IN HUMANS OR VETERINARY ANIMALS. THE USE OF THIS PRODUCT IN A THERAPEUTIC SETTING IS HAZARDOUS AND MAY RESULT IN ILLNESS, INJURY AND/OR DEATH.

Please read these instructions carefully before using this system.

The reagents in this system have been formulated and tested to work exclusively with the BenevBio Gel DNA Recovery System. This system may not perform as described if any reagent or procedure is replaced and/or modified.

For research use only. Not for human or diagnostic use.

WARRANTY

BenevBio guarantees the performance of all products when used as directed for their intended purpose. Should any product fail to perform satisfactorily for any reason other than misuse, BenevBio's sole liability hereunder shall be limited to refund of the purchase price or, at the discretion of BenevBio, the replacement of all material that does not meet our specifications. BenevBio shall not be liable otherwise or for incidental or consequential damages including, but not limited to, the cost of handling. We reserve the right to change or modify any components to enhance the performance or design. The Buyer must give notice within thirty (30) days after receipt of material or shall constitute a waiver by Buyer of all claims hereunder with respect to said material.

BenevBio CUSTOMER CARE INFORMATION

BenevBio
23263 Madero, Suite A
Mission Viejo, California 92691
USA

Sales/Customer Care: 888-43-BENEV
Direct: 949-457-2222
Fax: 949-457-2221

Internet: www.benevbio.com

STORAGE AND STABILITY

The system will perform as specified if stored dry at room temperature (20-25°C). Under these conditions the kit can be stored for up to 12 months without any decline in performance and/or quality.

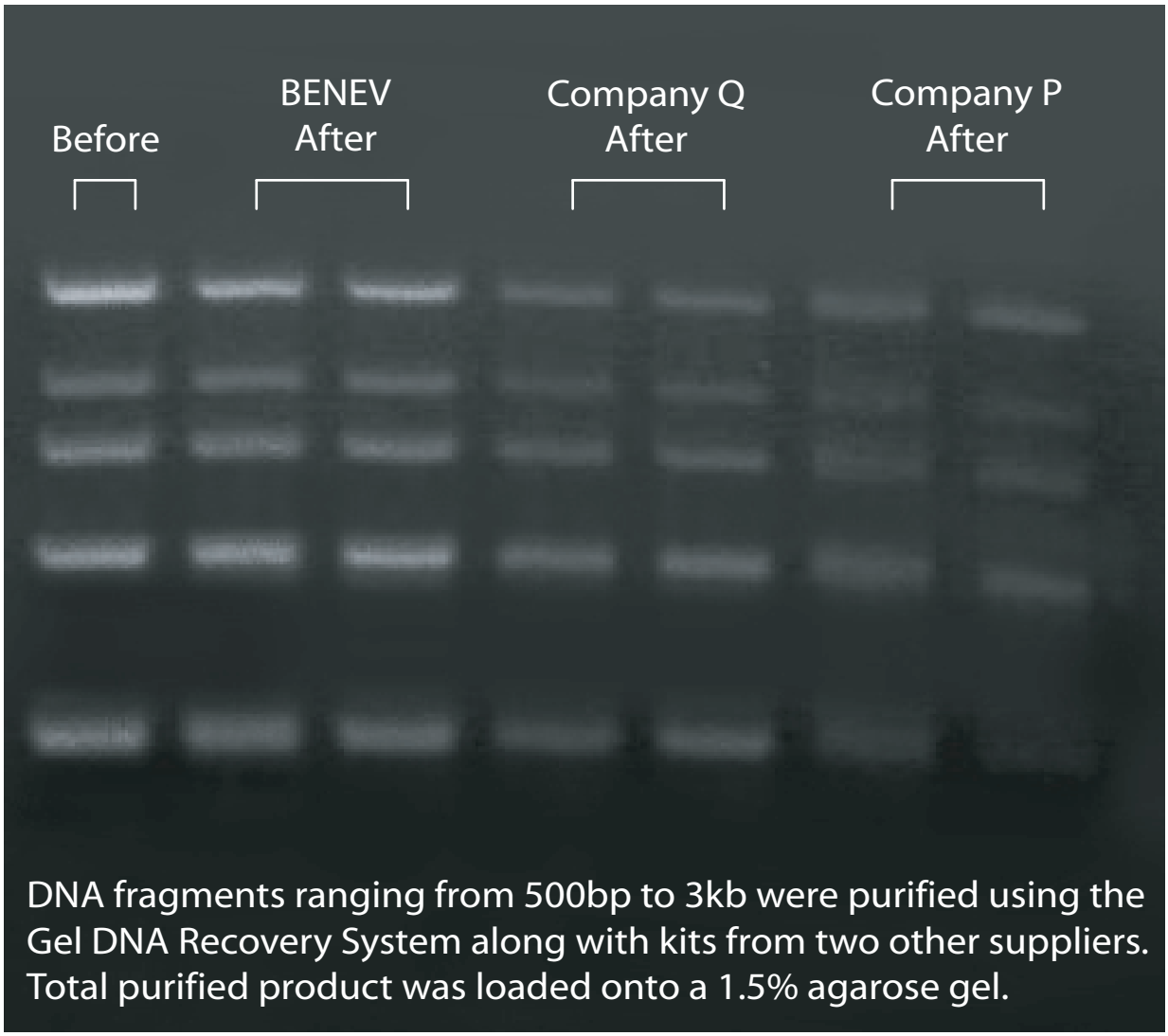
ADDITIONAL ITEMS REQUIRED

1. Microcentrifuge capable of reaching 16,000 x g.
2. Adjustable pipettor.
3. Ethanol.
4. Microcentrifuge tubes.
5. A source of "UltraPure" water. Water used to elute samples must be deionized and free of trace organic contaminants.

Note: UltraPure water is available for purchase.

INTRODUCTION AND DESCRIPTION

The BenevBio Gel DNA Recovery System is designed to extract and purify DNA fragments from standard or low-melt agarose gels in TAE or TBE buffer. The NucleoPur columns and buffer system are specifically designed to recover DNA fragments ranging from 70bp to 10kb. Samples are efficiently recovered and concentrated in as little as 6µl H_2O making it ideal for downstream procedures. (Scalable elution volume)



DNA fragments ranging from 500bp to 3kb were purified using the Gel DNA Recovery System along with kits from two other suppliers. Total purified product was loaded onto a 1.5% agarose gel.

QUICK PROTOCOL (ABRIDGED)

1. Add 3 volumes of DNA Extraction Buffer to every volume of gel.

2. Dissolve gel slice completely at 55 °C.

3. Spin though NucleoPur™ Column for 30 seconds. (10,000 x g)

4. Add 200µl wash buffer to NucleoPur™ Column and spin for 30 seconds at 10,000 x g. Decant flow-through and place spin column back into collection tube.

5. Repeat previous step and spin for 1 minute at 16,000 x g. Discard flow-through if necessary.

6. Place NucleoPur™ Column in a new microcentrifuge tube.

7. Add 6-35µl H_2O, wait 30 seconds, then spin for 1 minute at 16,000 x g.

Note: All centrifugation steps should be performed at room temperature.

PROTOCOL

NOTES: Be sure to add an appropriate volume of ethanol (95-100%) to the Wash Buffer Concentration before use. See bottle label for volume.

1. Excise DNA fragment from the agarose gel and place in a microcentrifuge tube.
2. Weigh the gel slice and add 3 volumes of DNA Extraction Buffer to each volume of gel.
   For example, add 300µl DNA Extraction Buffer to 100mg agarose gel.
   - For samples <100mg add 300µl DNA Extraction Buffer.
3. Place microcentrifuge tube in a heat block or water bath set at 55C° for 5 minutes or until completely dissolved. (In order to maximize efficiency, excise excess agarose).
4. Pipet mixture into BenevBio NucleoPur™ Column with collection tube attached.
5. Centrifuge for 30 seconds. (10,000 x g)
6. Add 200µl of Wash Buffer to the column and centrifuge for 30 seconds. (10,000 x g)
   (Discard flow-through if necessary.)
7. Repeat step 6 and centrifuge 1 minute at top speed.
8. Discard collection tube and place NucleoPur™ Column in a new microcentrifuge tube.
9. Add as little as 6-35µl nuclease-free H_2O directly to column matrix. Wait 30 seconds then centrifuge at top speed for 1 minute.

TROUBLESHOOTING

Low DNA yield:

Incorrect ratio of DNA Extraction Buffer to agarose gel sample.	Make certain that 3 volumes of Extraction Buffer is added to every 1 volume of agarose gel sample. For samples under 100mg, add 300µl of Extraction Buffer.
Ethanol was not added to wash buffer.	Ethanol must be added to the Wash Buffer Concentrate. Add an appropriate volume of ethanol and repeat procedure.
Agarose gel slice not completely dissolved.	Place agarose gel slices with DNA Extraction Buffer at 55°C for 5 minutes or until completely dissolved. Vortexing briefly every 2-3 minutes may help.
Incorrect elution buffer.	DNA will be efficiently eluted with a low salt buffer such as TE pH 8.0 or water.
Centrifugation too slow.	Centrifuge at 16,000 x g.

RELATED PRODUCTS

ITEM	CATALOG #	SIZE
PCR Purification System	PPS0001S	50 RXN
PCR Purification System	PPS0001L	250 RXN

ORDERING INFORMATION

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