VIRAL RNA EXTRACTION SYSTEM
PROTOCOL & TECHNICAL BULLETIN

BenevBio

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KIT CONTENTS

50 RXN Kit (VRE0001S):

ITEM	CATALOG #	50 RXN
RNA Extraction Buffer	VRE0002	1 bottle/25ml
Wash Buffer Concentrate	VRE0004	1 bottle/6ml
NucleoPur™ Columns	VRE0006	50 columns
Collection Tubes	CT0050	50 tubes

250 RXN Kit (VRE0001L):

ITEM	CATALOG #	50 RXN
RNA Extraction Buffer	VRE0003	1 bottle/125ml
Wash Buffer Concentrate	VRE0005	2 bottles/24ml
NucleoPur™ Columns	VRE0007	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 Viral RNA Extraction 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

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USA

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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 6 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 Viral RNA Extraction System is designed to efficiently extract viral RNA from cell-free lysates in as little as 10 minutes. Viral RNA specifically binds to the NucleoPur™ columns and is suitable for downstream procedures including Northern Blot, cDNA synthesis, and quantitative RT-PCR. Samples are efficiently recovered and concentrated in as little as 35µl for sensitive applications including RT-PCR and microarray analysis. Cell-free lysates include serum, plasma, csf, urine, etc.

PROTOCOL

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

1. Add 4 volumes of RNA Extraction Buffer to every 1 volume of sample and mix.
   For example, add 400µl of RNA Purification Buffer to 100µl sample.

2. Pipet mixture into a BenevBio NucleoPur™ Column with collection tube attached.

3. Centrifuge for at 10,000 x g for 1 minute.

4. Discard flow-through and place NucleoPur™ Column back into collection tube.

5. Add 300µl of Wash Buffer to the column and centrifuge at 10,000 x g for 1 minute.
   Discard flow-through and place column back into collection tube.

6. Repeat step 5 and centrifuge at top speed (16,000 x g) for 1 minute.

PROTOCOL

7. Discard collection tube and place NucleoPur™ Column in a new microcentrifuge tube.

8. Add 35-50µl nuclease-free water directly to the column matrix. Wait for 30 seconds and centrifuge at top speed for 1 minute.

TROUBLESHOOTING

Low RNA yield:

Incorrect ratio of RNA Purification Buffer to RNA sample.	Make certain that 4 volumes of RNA Extraction Buffer is added to every 1 volume of RNA sample. For samples under 25µls, add 100µls of RNA 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.
Incorrect elution buffer.	RNA will be efficiently eluted with a low salt buffer such as TE pH 8.0 or water.
RNA degraded.	Be sure to use RNase free pipet tips, tubes, etc. when working with RNA.

RELATED PRODUCTS

ITEM	CATALOG #	SIZE
DNA free RNA System	DRS0001S	50 RXN
RNA Purification System	RPS0001S	50 RXN

ORDERING INFORMATION

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NOTES

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