WizPrep™ Viral DNA/RNA Mini Kit (V2)

CE IVD *in vitro* Diagnostic Use Only

REF W73052

DESCRIPTION

The WizPrep™ Viral DNA/RNA Mini Kit (V2) provides a fast and simple method to isolate viral DNA and/or RNA from various samples including cell-free fluid, cell culture medium, plasma, or serum, swab, urine, or virus-infected liquid samples. The WizPrep™ Viral DNA/RNA Mini Kit (V2) uses silica-membrane technology to eliminate the cumbersome steps associated with loose resins or slurries. The kit is ready for use and can purify the viral nucleic acid from a wide variety of virus-infected samples, and the whole process is completed in less than 15 minutes. Purified viral DNA and/or RNA is suitable for PCR, or RT-PCR assay.

KIT CONTENTS

Contents	100 prep	300 prep
VL2 Buffer(1)	55 ml	165 ml
VB Buffer (concentrate)(1),(2)	15 ml	45 ml
W1 Buffer (concentrate)(1),(2)	30 ml	90 ml
W2 Buffer (concentrate)(2)	16 ml	48 ml
RNase-free water	15 ml	45 ml
Spin Columns(3)	100 pcs	300 pcs

* All components of this kit should be stored at room temperature (15-25°C). Long exposure to heat source can deteriorate the performance of kit significantly.

(1) During shipment or storage under cold ambient condition, a precipitate can be formed in VL2 Buffer, VB Buffer and/or W1 buffer. Heat the bottle at 20-40°C to dissolve completely in such a case

(2) VB Buffer, W1 and W2 Buffer are provided as concentrate. Ethanol must be added before first use as the indication on the bottle label.

(3) Although the spin column can be stored at room temperature, it is ideal to store under cool ambient condition or in a refrigerator. Heat sources and direct sunlight must be avoided.

PRODUCT USE LIMITATIONS

WizPrep™ Viral DNA/RNA Mini Kit (V2) kit is intended for *in vitro* diagnostic uses only. This kit is not intended for diagnosis or treatment for human. All due care and attention should be exercised in the handling of the products.

SAFETY INFORMATION

WizPrep™ Viral DNA/RNA Mini Kit (V2) kit contains irritants which are harmful when in contact with skin or eyes, or inhaled or swallowed. Care should be taken when handling this product. Always wear gloves and eye protection, and follow standard safety precautions.

VL2 Buffer, VB and W1 Buffer contain chaotropes which can form highly reactive compounds when combined with bleach. DO NOT add bleach or acidic solutions directly to the sample-preparation waste.

PROCEDURE FOR PURIFCATION OF DNA/RNA FROM VIRAL SAMPLE

Buffer Name	Volume of Contents	Ethanol to be added	Final Volume
VB Buffer	15(45) ml	**60(180) ml**	75(225) ml
W1 Buffer	30(90) ml	**30(90) ml**	60(180) ml
W2 Buffer	16(48) ml	**64(192) ml**	80(240) ml

QUALITY CONTROL ANALYSIS

In accordance with Wizbiosolutions Inc. ISO 13485-certified Quality Management System, each lot WizPrep™ Viral DNA/RNA Mini Kit (V2) is tested against predetermined specifications to ensure consistent product quality.

PROTOCOL

To check before start

!!! Before first use, add the indicated volume of absolute ethanol to VB Buffer, W1, and W2 Buffer, as below.

- Required consumables; 1.5 mL or 2 mL micro centrifuge tube Absolute ethanol, ACS grade or better.
- DO NOT use the precipitated buffers. If a precipitate forms in a buffer, dissolve completely at 20°C - 40°C before use

1. Transfer up to 300 µL of sample into a 1.5 mL or 2 mL micro tube.

▶ A sample can be used as forms of swab-storage media, cell-free fluid, cell culture media, plasma, serum, urine, or other body fluid.

▶ When the sample is less than 300 µL, adjust the volume to 300 µL with 1x PBS or reduce the volume of the VL2 Buffer and VB Buffer proportionally.

2. Add 500 µL of VL2 Buffer to the tube and lyse the sample by pipetting or vortexing.

▶ It is critical for proper lysis to make the mixture homogenized.

3. Incubate the lysate for 10 mins at room temperature.

▶ After incubation, briefly centrifuge the tube to remove drops from the inside of the lid.

4. Add 700 µL of VB Buffer to the lysate and mix thoroughly by vortexing or inverting.

▶ DO NOT centrifuge after addition of VB Buffer.

5. Transfer up to 750 µL of the mixture into a spin column, centrifuge for 30 secs at 13,000 xg, discard the pass-through, and insert the column back into the collection tube.

6. If there is a remaining mixture, repeat the step 5 with them.

7. Apply 500 µL of W1 Buffer into the column and centrifuge for 30 secs at 13,000 xg.

8. Remove the spin column, discard the pass-through, and insert the column back into the collection tube.

9. Apply 700 µL of W2 Buffer into the column and centrifuge for 30 secs at 13,000 xg.

10. Remove the spin column, discard the pass-through, and insert the column back into the collection tube.

11. Centrifuge for 1 min at 13,000xg for drying the membrane and transfer the spin column into a new 1.5 mL tube.

▶ Residual wash buffer may interfere with downstream applications. Care must be taken not to be contaminated by the carryover of W2 Buffer.

12. Apply 30 - 50 µL of Nuclease-free water to the center of spin column membrane and let it stand for 1 min.

▶ Elution volume can be adjusted according to the purpose of experiment.

▶ Note that at least 30 µL of eluent must be applied because the lesser eluent will not soak the membrane entirely, followed by poor or unpredictable result.

13. Centrifuge at 13,000 xg for 1 min for eluting.

▶ Purified nucleic acid can be stored at 4°C for immediate analysis and can be stored at - 70°C for long term storage.

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Add absolute ethanol to the W2 Buffer prior to initial use (see the bottle label for volume).

TROUBLESHOOTING

Problem	Possibile causes	Recommendations
Low yield	Low viral titer in the sample	• Use more sample. Concentrate the larger sample to 300 µL using micro-concentrator.
	Poor quality of starting material	• Use a freshly harvested sample or well-conserved sample if possible. Repeated freezing and thawing of sample should be avoided.
	Sample not homogenized	• For proper lysis, it is essential to get homogenate by mixing completely with VL2 Buffer.
	Ethanol was not added to the buffers	• VB Buffer, W1 and W2 Buffer are provided as concentrate. Ethanol must be added to these buffers before first use. If not, the result will be signifcantly poor.
	Incorrect pipetting of eluent	• Make sure to pipet Nuclease-free water to the center of the spin column membrane.
Spin column clogged	Cryoprecipitate in the sample	• Some thawed plasma sample can have cryoprecipitate in it, and it can clog the pore of the membrane during experiment. Cryoprecipitate can be removed from the sample by centrifugation.
Enzymatic reaction is not performed well with purifed RNA	Salt carryover in eluate Residual ethanol in eluate	• Ensure that washing steps are carried out just in accordance with the protocols. Additional W2 Buffer-washing step may help remove salts from the membrane.
	Residual ethanol in eluate	• The spin column membrane should be dried completely before eluting. Perform additional centrifugation to dry the membrane, if needed. DO NOT incubate the column at high temperature.

SYMBOL GLOSSARY

REF	Catalogue number		Manufacturer
LOT	Batch code	EC REP	Authorized representative in the European Community
	Temperature limit	IVD	in-vitro diagnostic use only
	Use-by date	CE	CE Marking
Σ	Contents sufficient for <n> tests		Instructions for use

ORDERING INFORMATION

Product	Cat No.	Package
WizPrep™ Viral DNA/RNA Mini Kit (V2)	W73052-100	100 prep
	W73052-300	300 Prep

MFDS License No. : IVD-19-277

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