WizPrep™ Viral DNA/RNA Mini Kit (Plus)

RUO For Research Use Only

REF W73051

DESCRIPTION

The WizPrep™ Viral DNA/RNA Mini Kit (Plus) provides a fast and simple method to isolate viral DNA and/or RNA from various sample including blood, serum, plasma, body fluid or the supernatant of viral infected cell cultures.

The WizPrep™ Viral DNA/RNA Mini Kit (Plus) 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 20 minutes. Purified viral DNA and/or RNA is suitable for PCR or RT-PCR assay.

KIT CONTENTS

Contents	100 prep	300 prep	Storage
VL Buffer	25 ml	80 ml	Room temp
W1 Buffer	55 ml	180 ml	Room temp
W2 Buffer (concentrate)(1)	18 ml	50 ml	Room temp
RNase-free water	10 ml	30 ml	Room temp
Proteinase K (lyophilized)*	22 mg x 2	22 mg x 6	4℃
Carrier RNA (lyophilized)**	370 ug x 2	370 ug x 6	-20℃
Spin Columns***	100 pcs	300 pcs	Room temp
Instruction Manual	1 pcs	1 pcs	

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

* After receiving the Proteinase K, please store at 4℃.
After dissolved in distilled water, store the Proteinase K solution at 4℃ for up to 3 months. For longer storage (up to 1 year), the Proteinase K solution should be divided into small aliquot and stored at -20℃.

** After receiving the Carrier RNA, please store at -20℃.
Add 370ul of RNase-free water into the Carrier RNA and mix well, Carrier RNA solution should be divided into small aliquots to avoid repeated freeze-thaw cycles.

*** All Spin Columns are sterilized by electron beam.

REAGENTS AND EQUIPMENT TO BE SUPPLIED BY USER

- 96-100% ethanol (to prepare W2 Buffer)
- 1.5 ml microcentrifuge tubes
- Sterile RNase-free pipette tips and Manual pipettors
- Centrifuge for microcentrifuge tubes
- Equipment for sample disruption and homogenization
- Personal protection equipment (lab coat, gloves, goggles)

KIT SPECIFICATIONS

Parameter	Characteristics
Format	Silca-membrane spin column
Sample materials	200 ul of biological sample
Elution volume	50 µl
Preparation time	< 20 minutes
Binding capacity	200 ug

QUALITY CONTROL ANALYSIS

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

PROTOCOL

To check before start

1) Add 72(200) ml of 100% ethanol to the 18(50) ml of W2 Buffer.
2) Dissolve each vial of Proteinase K (22mg) in 1,100µl distilled water.
3) Dissolve each vial of Carrier RNA (370ug) in 370µl distilled water.
4) Prepare VL Buffer with Carrier RNA by adding 7µl of Carrier RNA into 200µl of VL Buffer per sample.

1. Lysis

- Add **200µl of sample** to 1.5ml microcentrifuge tube. (Use up to 200µl whole blood, plasma, serum, body fluids or the supernatant of viral infected cell culture). if the sample volume is less than 200µl, adjust the sample volumne to 200µl with D.W or PBS.
- Add **200µl of VL Buffer** (containing Carrier RNA) and **20µl of Proteinase K** (20mg/ml) and mix by vortexing.
- Incubate at 56℃ for 10 minutes. During incubation, invert the tube every 5 minutes.
  Note: If a precipitate has formed in VL Buffer, dissolve by incubating at 56°C before use.

2. Binding

- Add **200µl of 100% ethanol** to the sample lysates and mix by vortexing briefly.
- Connect the Spin Column to 2.0ml Collection tube.
- Apply the mixture to the Spin Column and centrifuge for 1 min. at 13,000 rpm.
- Discard the flow-through and re-connect with Spin Column.

3. Wash

- Add **500µl of W1 Buffer** to the Spin Column and centrifuge for 1 min. at 13,000 rpm.
- Discard the flow-through and re-connect with Spin Column.
- Add **700µl of W2 Buffer** (ethanol added) in the Spin Column and centrifuge for 1 min. at 13,000 rpm.
- Discard the flow-through and re-connect the Spin Column and centrifuge for 2 min. at 13,000 rpm.

4. Elution

- Connect the Spin Column and new 1.5 ml tube.
- Add **30-50µl of RNase-free Water** and incubate at R/T for 1 min.
- Centrifuge for 1 min. at 13,000 rpm.
- Discard the Spin Column and eluted purified virla DNA and/or RNA for use next step.

5. Storage

- The purified DNA and/or RNA sample may be stored at –20°C for a few days. It is recommended that samples be placed at –70°C for long term storage.

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TROUBLESHOOTING

Problem	Possibility	Suggestions
Low DNA/RNA yield	Samples not fresh or not properly stored	• Sample can only be thawed not more than once.
	Inefficient nuclease inhibition during sample lysis step.	• Ensure that VL Buffer is mixed homogeneously with the mixture of sample and Proteinase K.
	Ethanol is not added after sample lysis	• Repeat purification with new sample.
	W1 Buffer and W2 Buffer are reconstituted wrongly	• Repeat purification with new sample.
	Spin Column is not dried before addition of Elution Buffer	• Ensure that Spin Column is spun dried at maximum speed for 3 minutes after addition of W2 Buffer.
	Carrier RNA is not added to VL Buffer	• Prepare VL Buffer with Carrier RNA as described in the protocol.
	Low quality of Carrier RNA	• Ensure that the Carrier RNA is aliquoted and can only be thawed not more than once. Please refer to "Kit contensts" • Ensure that any precipitate formed in VL Buffer is completely dissolved.
Poor performance of eluted DNA/RNA in downstream applications	RNA degraded	• Process sample immediately or if sample is stored for later use, ensure that sample is thawed on ice. • Use disposable plasticware and pipette tips. • Ensure that the purification is performed in an RNase-free environment.
	Eluted DNA/RNA contains traces of ethanol	• Ensure that the Spin Column drying step is carried out prior to elution.
	Low concentration of eluted DNA/RNA	• Reduce the amount of Elution Buffer but not less than 30µl

SYMBOL GLOSSARY

REF	Catalogue number		Manufacturer
LOT	Batch code	RUO	Research use only
	Temperature limit		Instructions for use
	Use-by date		

ORDERING INFORMATION

Product	Cat No.	Package
WizPrep™ Viral DNA/RNA Mini Kit (Plus)	W73051-100	100 prep
	W73051-300	300 Prep

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