CE IVDR

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AZUL VIRAL RNA & DNA EXTRACTION KIT

RNA & DNA IN 40 MINS | GOOD YIELDS FOR USE IN PCR/SEQUENCING

PRODUCT BROCHURE

Cat No-RE116

ISO 13485 CERTIFIED

PRODUCT DESCRIPTION

AZUL Viral RNA & DNA Extraction Kit offers a straightforward and highly efficient solution for extracting total RNA & DNA from virus particles from various biological samples/fluids, in Viral Transport Medium (VTM) or molecular transport medium (MTM). This kit uses a silica-based spin column technology for isolating RNA & DNA from biological samples, thereby eliminating toxic phenol-chloroform extractions. The eluted RNA & DNA is suitable for a wide range of molecular biology applications, including semi-quantitative PCR and real-time quantitative PCR (RT-qPCR) analysis.

KIT COMPONENTS

Components	For 50 preps	For 25 preps
Lysis Buffer(LB)	15mL	8mL
Binding buffer(BB)	25mL	13mL
Proteinase K	1 mL	0.5 mL
Wash Buffer 1(WB1)	30mL	15mL
Wash Buffer 2(WB2)	25mL	13mL
Elution Buffer(EB)	4mL	2mL
Spin Column	50 (Pouch pack)	25 (Pouch pack)

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SPECIFICATIONS

Format	Spin column
Sample type	Viral particles from fluids etc
Equipment	Microcentrifuge
Processing time	<40 mins
Processing volume	300µL - 1mL
Type	Total RNA & DNA
Sample storage	Eluted RNA & DNA should be stored at ≤ -20°C
Yield	2-10 µg
Purity	A260/280 ≥ 2.0
Kit Storage	Room Temperature
Kit Validity	Viable for 1 year if stored at appropriate conditions

NOTE: *Check the Binding Buffer and Lysis Buffer for any salt precipitation before every use. Re-dissolve any precipitate by warming the solution to 37°C, then cool it back to room temperature before use.*

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RNA & DNA EXTRACTION PROTOCOL

1. 300µL of clinical samples collected from viral transport medium (VTM) or molecular transport medium (MTM), or 300µL - 1mL of biological fluids is added to a 1.5mL microfuge tube (For viscous fluids such as allantoic fluid, centrifuge at 3000 rpm to settle the cell debris. The resulting supernatant containing virus particles can be used for further processing).
2. Add 500 µL of Lysis Buffer and mix well by pipetting up and down for complete homogenization of the sample. Vortex for 30 seconds to mix thoroughly.
3. Add 20 µL of Proteinase K, invert and mix the tubes. Incubate at 56°C for 20 mins.
4. Centrifuge the microfuge tube for 5 min at 13,000 rpm.
5. Transfer the clear supernatant into a new sterile microcentrifuge tube and add 400 µL - 500 µL of Binding Buffer and mix slowly by pipetting.
6. Transfer up to 700µL lysate to the spin column inserted in a collection tube. Centrifuge the column for 2 min at 12,000 rpm.
7. Discard the flowthrough and place the purification column back into the collection tube. Repeat this step until the entire lysate has been transferred into the column and centrifuged.
8. Add 600 µL of Wash Buffer 1 to the spin column and centrifuge for 1 min at 12,000 rpm.
9. Add 500 µL of Wash Buffer 2 to the spin column and centrifuge for 1 min at 12,000 rpm.
10. Transfer purification to a clean, sterile microfuge tube and add 30µL - 50µL of TE buffer or DNase/RNA & DNAse-free water to the centre of the column.
11. Centrifuge the column at 12,000 rpm for 2min.
12. Discard the purification column and use the flowthrough with RNA & DNA directly for the quantitative real time PCR application and Store the isolated RNA & DNA at -20°C or -80°C until use.

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FLOW DIAGRAM OF RNA & DNA EXTRACTION

VTM or MTM

or any biological fluid

300 µL - 1 mL of clinical sample

Add 500 µL Lysis Buffer

Add 20 µL Proteinase K
Incubate at 56°C for 20 mins

Centrifuge at 13,000 rpm for 5 mins

Transfer clear supernatant to new tube

Add 400-500 µL
Binding Buffer

Mix well
Transfer lysate to Spin column

Centrifuge at 12,000 rpm for 2 mins

Add 600 µL wash buffer

Centrifuge at 12,000 rpm for 1 min

Repeat this step Wash Buffer 2

Add 30-50 µL elution buffer

Centrifuge at 12,000 rpm for 2 mins

Eluted RNA & DNA

Store at -20°C or -80°C
until use

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSES	SUGGESTED SOLUTIONS
Low RNA & DNA Yield	**Sample input:** Too much input.	Use less input material or increase the volume of the Lysis Buffer.
Low RNA & DNA Purity(A260/A280)	Improper sample handling results in ethanol or salt contamination	Make sure lysate and wash buffers have passed entirely through the matrix of the column. This may require centrifuging at a higher speed or longer time.
RNA & DNA Degradation	Use of samples not stored at appropriate conditions	**To prevent RNA & DNA degradation**: Immediately collect and lyse fresh samples into a Lysis Buffer. Collect and store the samples in RNAWRAPR Solution to ensure stability & integrity of RNA & DNA and process later.

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FEEDBACK

How did this kit perform?

Did AZUL Extraction Kit fulfill expectations required for your research?
Let us know by filling out the feedback form here

Or scan the QR code:

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