CE IVDR

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AZUL MICROBIOME RNA EXTRACTION KIT

RNA IN 75 MINS | GOOD YIELDS FOR USE IN PCR/SEQUENCING

PRODUCT BROCHURE

Cat No-RE113

ISO 13485 CERTIFIED

PRODUCT DESCRIPTION

AZUL Microbiome RNA Extraction Kit is an easy and efficient system for the isolation of high-quality microbial and host RNA from samples like vaginal, tears or vitreous humor Samples. This kit uses a silica-based spin column technology for isolating RNA from biological samples, thereby eliminating toxic phenol-chloroform extractions. The eluted RNA is suitable for all sensitive downstream applications such as qPCR and Next-Generation sequencing.

KIT COMPONENTS

Components	For 50 preps	For 25 preps
Lysis Buffer 1 (LB1)	35 mL	20 mL
Lysis Buffer 2 (LB2)	3 mL	2 mL
Binding Buffer (BB)	25 mL	15 mL
Proteinase K	3 mL	2 mL
Wash Buffer 1 (WB1)	25 mL	15 mL
Wash Buffer 2 (WB2)	25 mL	15 mL
Elution Buffer (EB)	4 mL	2 mL
Spin Column	50 (Pouch pack)	25 (Pouch pack)

SPECIFICATIONS

Format	Spin Column
Sample type	Vaginal, Tears or Vitreous Humor Samples
Equipment	Microcentrifuge
Processing time	<75 mins
Processing volume	>250 µL - 1 mL
Type	Total RNA
Sample storage	Eluted RNA should be stored at ≤ -20°C
Yield	1 - 5 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 EXTRACTION PROTOCOL

1. Take around >250 µL of tears or vitreous humor samples collected or swab samples of vagina collected in any medium or stored in mWRAPR Microbiome stabilization solution in a microfuge tube.
2. Add 500 µL - 700 µL of Lysis Buffer 1 (LB1), and 50 µL of Lysis Buffer 2 (LB2) into the tube.
3. Mix briefly by vortexing the tube for 30 sec.
4. Add 50 µL of Proteinase K to the tube and incubate at 56°C for 30 mins.
5. Centrifuge the tube at 15,000 rpm for 10 mins. Transfer the clear supernatant to a new microfuge tube.
6. Add 500 µL Binding Buffer (BB) to this suspension and mix briefly by inverting the tube a few times. Incubate the tube at -20°C for 15 mins.
7. Mix well and transfer the suspension to a spin column and centrifuge the tube at 15,000 rpm for 2 mins.
8. Discard the flow-through and place the purification column back into the collection tube. Repeat this step until complete lysate has been transferred into the column and centrifuged.
9. Wash the spin column with 500 µL Wash Buffer 1 (WB1) at 15,000 rpm for 1 min and discard the flow through.
10. Add 500 µL of Wash Buffer 2 (WB2) to the column and centrifuge at 15,000 rpm for 1 min to completely remove salts and impurities.
11. Keep the purification column in a clean, sterile 1.5 mL microfuge tube and add 25 µL - 30 µL of Elution Buffer or DNase/RNase-free water to the center of the column.
12. Centrifuge the column for 15,000 rpm for 2 mins.
13. Discard the purification column and store the eluted RNA at -20°C or -80°C until use.

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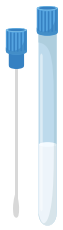
FLOW DIAGRAM OF RNA EXTRACTION PROTOCOL

>250 µL of Liquid/stored sample



500 µL-700 µL Lysis Buffer 1,
50 µL Lysis Buffer 2

50 µL Proteinase K
Incubate at 56°C for 30 mins

Centrifuge at 15,000 rpm for 10 mins

Transfer clear supernatant to new tube

Add 500 µL
Binding Buffer

Keep at -20°C for 15 mins

Mix well
Transfer lysate to Spin column

Centrifuge at 15,000 rpm for 2 mins

Add 500 µL Wash Buffer 1

Centrifuge at 15,000 rpm for 1 min

Add 500 µL Wash Buffer 2

Centrifuge at 15,000 rpm for 1 min

Add 25 µL - 30 µL Elution Buffer

Centrifuge at 15,000 rpm for 2 mins

Eluted RNA

Store at -20°C or
-80°C until use

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSES	SUGGESTED SOLUTIONS
Low RNA Yield	**Sample input:** Less sample input	Use of ≥500 µL of sample is recommended for good RNA yield.
Low RNA 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.
	Incomplete lysis or cellular debris	Increase the volume of Lysis Buffer to ensure complete lysis. Be sure to centrifuge and pellet any cellular debris, then process the cleared lysate.
DNA Contamination	Too much sample used	**To remove DNA:** Perform in-column DNase I treatment or perform DNase I treatment post-purification (not provided in the kit), then re-purify the treated sample.
RNA Degradation	Usage of old samples	**To prevent RNA degradation:** Lyse fresh samples into a Lysis Buffer. Collect and store the fresh samples in mWRAPR Microbiome Solution to ensure stability & integrity of RNA and process later.

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ORDERING INFO

CATALOG NO	PRODUCT	PREP
RE101	AZUL SARS- CoV-2 Kit RNA Extraction Kit	25/50 preps
RE102	AZUL Tissue RNA Extraction Kit	25/50 preps
RE103	AZUL Bacterial RNA Extraction Kit	25/50 preps
RE104	AZUL Plant RNA Extraction Kit	25/50 preps
RE105	AZUL Soil RNA Extraction Kit	25/50 preps
RE106	AZUL Animal Cell Culture RNA Extraction Kit	25/50 preps
RE107	AZUL Blood RNA Extraction Kit	25/50 preps
RE108	AZUL Stool RNA Extraction Kit	25/50 preps
RE109	AZUL Saliva RNA Extraction Kit	25/50 preps
RE113	AZUL Microbiome RNA Extraction Kit	25/50 preps
RE114	AZUL Fungal RNA Extraction Kit	25/50 preps
RE115	AZUL FFPE RNA Extraction Kit	25/50 preps

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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:

CONTACT US

hello@azooka.life +91 8088747968 www.azooka.life

AZOOKALIFE AZOOKA.LABS AZOOKALIFESCIENCES AZOOKALIFE

RESEARCH CENTRE:
Society for Innovation and Development, Indian Institute of Science, Malleshwaram, Bengaluru, Karnataka, India- 560055

MANUFACTURED AT:
1A, Kushal Garden Arcade, 'C' Block, 5th Floor, Peenya Industrial Area, 2nd Phase, Bengaluru, Karnataka, India- 560058