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AZUL ANIMAL CELL CULTURE RNA EXTRACTION KIT

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

PRODUCT BROCHURE

Cat No-RE106

ISO 13485 CERTIFIED

PRODUCT DESCRIPTION

AZUL Animal Cell Culture RNA Extraction Kit is an easy and efficient system for the isolation of total RNA from animal cell cultures. 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(LB)	25mL	13mL
Binding buffer(BB)	20mL	10mL
Wash Buffer 1(WB1)	25mL	13mL
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	Animal cell suspension cultures
Equipment	Microcentrifuge
Processing time	<40 mins
Processing volume	200µL - 1 mL
Type	Total RNA
Sample storage	Eluted RNA should be stored at ≤ -20°C
Yield	1-5 µg
Purity	A260/280 ≥ 1.8
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. In a 1.5 mL microfuge tube, take around 200µL-1mL of suspension culture and centrifuge at 600 rpm for 2 mins to pellet the cells.
2. Add 300µL-500µL of Lysis Buffer to the pellet and mix briefly by inverting the tube a few times.
3. Centrifuge at 13,000 rpm for 5 minutes at room temperature.
4. Carefully transfer the clear supernatant to a new 1.5 mL microfuge tube. Add 300µL-400µL of Binding Buffer and mix the tube briefly by inverting it a few times.
5. Transfer the lysate to the spin column inserted in a collection tube. Centrifuge at 12,000 rpm for 2 min.
6. Discard the flow-through 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.
7. Add 500µL of Wash Buffer 1 to the column and centrifuge at 12,000 rpm for 1 min.
8. Add 500µL of Wash Buffer 2 to the column and centrifuge at 12,000 rpm for 1 min to completely remove salts and impurities.
9. Transfer the purification column to a clean, sterile microfuge tube and add 30µL-50µL of Elution Buffer or DNase/RNase-free water to the center of the column.
10. Centrifuge the column at 12,000 rpm for 2 minutes.
11. Discard the purification column and store the eluted RNA at -20°C or -80°C until use.

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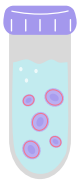
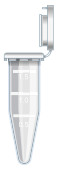
FLOW DIAGRAM OF RNA EXTRACTION PROTOCOL



Animal cell suspension

Pellet the cells by centrifugation
At 600 rpm for 2 mins

Add 300-500 µL Lysis Buffer



Centrifuge at 13,000 rpm for 5 mins

Transfer clear supernatant to new tube

Add 300-400 µL Binding Buffer

Mix well
Transfer lysate to Spin column

Centrifuge at 12,000 rpm for 2 mins

Add 500 µL wash buffer

Centrifuge at 12,000 rpm for 1 min

Repeat this step with Wash Buffer 2

Add 30-50 µL elution buffer

Centrifuge at 12,000 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:** Too much input.	Use less input material or increase the volume of the Lysis Buffer.
	Improper Sample Handling: Sample was vortexed or centrifuged at high speed and handled too roughly.	Slightly invert the tubes for mixing. Avoid vortexing. Only centrifuge at a speed mentioned in the protocol.
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/ homogenisation. Be sure to centrifuge and pellet any cellular debris, then process the cleared lysate.
DNA Contamination	Too much culture 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 Cell suspension culture	**To prevent RNA degradation:** Immediately collect and lyse fresh samples into a Lysis Buffer. Collect and store the fresh cell cultures in mWRAPR Cell Preservation 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:

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