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azooka



# AZUL STOOL DNA EXTRACTION KIT

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

## PRODUCT BROCHURE



Cat No-DE111

ISO 13485 CERTIFIED

**PRODUCT DESCRIPTION**

AZUL Stool DNA Extraction Kit is an easy and efficient system for the isolation of high-quality genomic DNA (human and bacterial) from fresh, frozen stool or from stool samples stored in stabilization solution. This kit uses a silica-based spin column technology for isolating DNA from biological samples, thereby eliminating toxic phenol-chloroform extractions. The eluted DNA is suitable for all sensitive downstream applications such as qPCR and Next-Generation sequencing.

**KIT COMPONENTS**

Components	For 50 preps	For 25 preps
Extraction Buffer (ETB)	35 mL	20 mL
Lysis Buffer 1 (LB1)	2 mL	1 mL
Lysis Buffer 2 (LB2)	1 mL	0.5 mL
Stabilization Buffer (SB)	50 mL	25 mL
Proteinase K	1.3 mL	750 µL
Binding Buffer (BB)	30 mL	15 mL
Wash Buffer 1 (WB1)	30 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

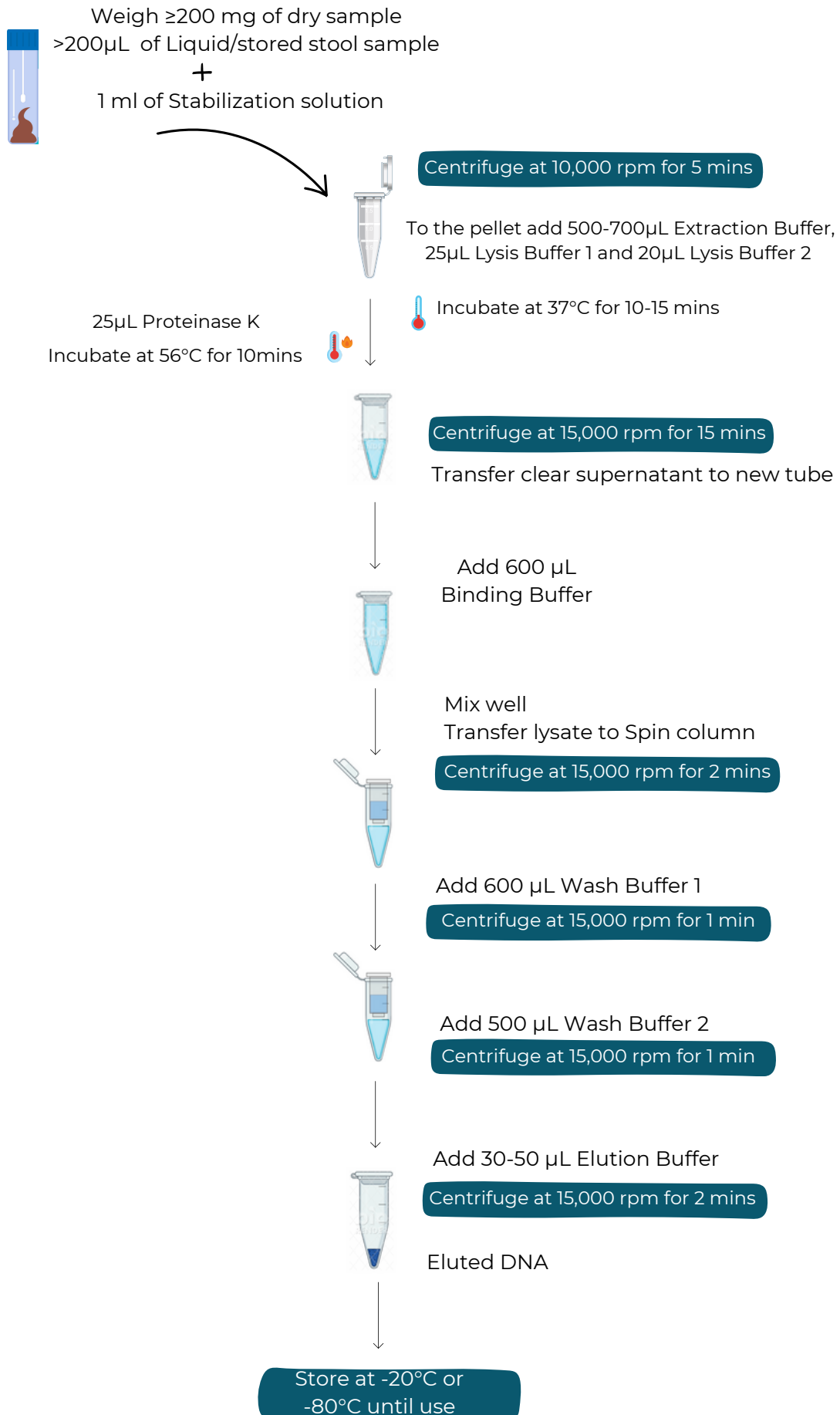
Format	Spin Column
Sample type	Fresh, Frozen stool samples, Stool samples stored in stabilization solution.
Equipment	Microcentrifuge
Processing time	75 Mins
Sample amount	>200 $\mu$ L - Liquid/stored stool samples >200mg - Solid samples
Type	Total DNA
Sample storage	Eluted DNA should be stored at $\leq -20^{\circ}\text{C}$
Yield	25 - 50 $\mu$ g
Purity	$A_{260}/A_{280} \geq 1.8 - 2$
Kit Storage	Room Temperature
Kit Validity	Viable for 1 year if stored at appropriate conditions

**NOTE:** Check the Extraction Buffer, Binding Buffer and Lysis Buffer for any salt precipitation before every use. Re-dissolve any precipitate by warming the solution to  $37^{\circ}\text{C}$ , then cool it back to room temperature before use.

## DNA EXTRACTION PROTOCOL

1. Collect and weigh >200 mg of fresh, frozen stool samples or transfer >200  $\mu$ L stool samples stored in stabilization solution to a clean microfuge tube and add 1 mL of Stabilization Buffer (SB).
2. Centrifuge the tube at 10,000 rpm for 5 mins.
3. Discard the supernatant, to the pellet add 500  $\mu$ L-700  $\mu$ L of Extraction Buffer (ETB), and 25  $\mu$ L of Lysis Buffer 1 (LB1).
4. Mix briefly by vortexing for 30 secs.
5. Add 20  $\mu$ L of Lysis Buffer 2 (LB2) to the mixture and mix well. Incubate the tubes at 37°C for 10-15 mins or until the solution turns clear.
6. Add 25  $\mu$ L of Proteinase K to the tube and incubate at 56°C for 10 mins with intermittent vortexing every 5 mins.
7. Centrifuge the tube at 15,000 rpm for 15 mins at RT. Transfer the clear supernatant to a new microfuge tube.
8. Add 600  $\mu$ L Binding Buffer (BB) to this suspension and mix briefly by inverting the tube a few times.
9. Transfer the suspension to a spin column and centrifuge the tube at 15,000 rpm for 2 mins at RT.
10. 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.
11. Wash the spin column with 600  $\mu$ L Wash Buffer 1 (WB1) at 15,000 rpm for 1 min and discard the flow through.
12. Add 500  $\mu$ L of Wash Buffer 2 (WB2) to the column and centrifuge at 15,000 rpm for 1 min to completely remove salts and impurities.
13. Keep the purification column in a clean, sterile 1.5 mL microfuge tube and add 30  $\mu$ L-50  $\mu$ L of Elution Buffer (EB) or DNase/RNase-free water to the center of the column.
14. Centrifuge the column for 15,000 rpm for 2 mins.
15. Discard the purification column and store the eluted DNA at -20°C or -80°C until use.

## FLOW DIAGRAM OF DNA EXTRACTION PROTOCOL



## TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSES	SUGGESTED SOLUTIONS
Low DNA Yield	<b>Sample input:</b> Too much sample input or significantly less sample used.	Use less input material or increase the volume of the Extraction Buffer for better lysis.  Use of $\geq 200$ mg or $>200$ $\mu$ L of sample is recommended for good DNA yield.
	Incomplete Debris Removal or incomplete lysis/homogenization can cause debris to clog or overload the column and leech salts into DNA eluate.	Increase the volume of Extraction Buffer to ensure complete homogenization. Be sure to centrifuge and pellet any debris and transfer the supernatant while avoiding any pellet debris.
Low 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 Contamination	Too much sample used	<b>To remove RNA:</b> Perform in-column RNase I treatment or perform RNase I treatment post-purification (not provided in the kit), then re-purify the treated sample.
DNA Degradation	Use of old samples	<b>To prevent DNA degradation:</b> Immediately collect and lyse fresh stool samples into a Extraction Buffer.  Collect and store the fresh stool samples in mWRAPR Fecal DNA Solution to ensure stability & integrity of DNA and process later.

## ORDERING INFO

CATALOG NO	PRODUCT	PREP
DE101	AZUL Tissue DNA Extraction Kit	25/50 preps
DE102	AZUL Animal Cell Culture DNA Extraction Kit	25/50 preps
DE103	AZUL Bacterial DNA Extraction Kit	25/50 preps
DE104	AZUL Plasmid DNA Extraction Kit	25/50 preps
DE105	AZUL Plant DNA Extraction Kit	25/50 preps
DE106	AZUL Soil DNA Extraction Kit	25/50 preps
DE107	AZUL Blood DNA Extraction Kit	25/50 preps
DE108	AZUL Cell-free DNA Extraction Kit	25/50 preps
DE109	AZUL DNA Extraction Kit- Difficult samples	25/50 preps
DE110	AZUL Saliva DNA Extraction Kit	25/50 preps
DE111	AZUL Stool DNA Extraction Kit	25/50 preps
DE112	Quick AZUL Bacterial/Fungal DNA Extraction Kit	25/50 preps
DE113	AZUL Microbiome DNA Extraction Kit	25/50 preps
DE114	AZUL Gel DNA Extraction Kit	25/50 preps
DE115	AZUL FFPE DNA Extraction Kit	25/50 preps
DE116	AZUL Chloroplast DNA Extraction Kit	25/50 preps
DE117	AZUL Mitochondrial DNA Extraction Kit	25/50 preps
DE118	AZUL Pollen DNA Extraction Kit	25/50 preps
DE119	AZUL Fungal DNA Extraction Kit	25/50 preps
DE120	AZUL Sperm DNA Extraction Kit	25/50 preps
DE121	AZUL Skin DNA Extraction Kit	25/50 preps

## 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



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