CE IVDR

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AZUL POLLEN DNA EXTRACTION KIT

GOOD YIELDS FOR USE IN PCR/SEQUENCING

PRODUCT BROCHURE

Cat No-DE118

ISO 13485 CERTIFIED

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PRODUCT DESCRIPTION

AZUL Pollen DNA Extraction Kit is an easy and efficient system for the isolation of pollen DNA from samples like honey. 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 1	36mL	18mL
Lysis Buffer 1(LB1)	6mL	3mL
Extraction Buffer 2	26mL	13mL
Lysis Buffer 2(LB2)	3mL	1.5mL
Proteinase K	1mL	0.5mL
AZUL Bashing Beads	200	100-125
Binding buffer(BB)	30mL	15mL
Wash Buffer (WB)	60mL	30mL
Elution Buffer(EB)	4mL	2mL
Spin Column	50 (Pouch pack)	25 (Pouch pack)

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SPECIFICATIONS

Format	Spin column
Sample type	Pollen from honey
Equipment	Microcentrifuge
Processing time	Depending on the duration of incubation
Sample amount	>3 mL
Type	Pollen DNA
Sample storage	Eluted DNA should be stored at ≤ -20°C
Yield	20 to 45 ng/µl
Purity	A260/280 ≥ 1.8
Kit Storage	Room Temperature Proteinase K at -20°C
Kit Validity	Viable for 1 year if stored at appropriate conditions

NOTE: *Check the Extraction buffer and Binding 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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DNA EXTRACTION PROTOCOL

1. Take 3 mL of Honey (which might contain pollen cells) dissolve in 1 ml sterile water and incubate at 65°C for 30 min.
2. Centrifuge at 5000 rpm for 10 min. Discard the supernatant, and air dry the pellet for 5 mins at room temperature.
3. Add 700 µl extraction buffer 1, 4 glass beads and vortex well for 1-2 mins.
4. Add 100 µl of lysis buffer 1 and 10 µl proteinase K, mix by gentle inversion, and incubate at 56°C for 1 hour.
5. To this add 500 µl extraction buffer 2, 10 µl proteinase K, and 50 µl lysis buffer 2, mix well and incubate at 65°C for 4 hours - overnight.
6. Centrifuge at 10,000 rpm for 10 mins. Transfer the clear supernatant to a 2 ml Eppendorf tube, further add 500 µl of binding buffer and mix well.
7. Transfer the lysate to a clean spin column. Centrifuge the spin column at 13,000 rpm for 2 min at RT.
8. 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.
9. Wash the spin column with 500 µL Wash Buffer (WB) at 13,000 rpm for 1 min and discard the flow through. Repeat this step again.
10. Keep the purification column in a clean, sterile 1.5 mL microfuge tube and add 30 µL of Elution Buffer or DNase/RNase-free water to the center of the column.
11. Centrifuge the column for 13,000 rpm for 2 min.
12. Discard the purification column and store the eluted DNA at -20°C or -80°C until use.

- *Overnight incubation after adding the extraction buffer 2 is recommended, as it enhances DNA yield.*
- *Use ice-cold binding buffer to enhance binding efficiency.*
- *On addition of elution buffer to the column incubate at RT for 2 mins, for efficient elution.*

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FLOW DIAGRAM OF DNA EXTRACTION PROTOCOL

3 mL of honey

1 mL Sterile water

Incubate at 65°C for 30 mins

Centrifuge at 5000 rpm for 10 mins

Air dry the pellet

Add 700 µL Extraction Buffer 1 + Glass beads + 10 µL Proteinase K + 100 µL Lysis Buffer 1

Incubate at 56°C for 1 hour

Add 500 µL Extraction Buffer 2 + 10 µL Proteinase K + 50 µL Lysis Buffer 2

Incubate at 65°C for 4 hours - overnight

Centrifuge at 10,000 rpm for 10 mins

Transfer Supernatant to fresh tube, add 500 µl of binding buffer

Mix well

Transfer lysate to Spin column

Centrifuge at 13,000 rpm for 2 mins

Add 500 µL wash buffer

Centrifuge at 13,000 rpm for 1 min

Repeat this step again

Add 30 µL elution buffer

Centrifuge at 13,000 rpm for 2 mins

Eluted DNA

Store at -20°C or -80°C until use

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSES	SUGGESTED SOLUTIONS
Low DNA Yield	**Sample input:** Too much input or incomplete lysis/homogenisation can cause cellular debris to clog or overload the column and leech salts into DNA eluate.	Use less input material or increase the volume of the Extraction Buffer and vortex thoroughly for longer time.
	Incomplete Debris Removal or incomplete lysis/homogenisation can cause cellular debris to clog or overload the column and leech salts into DNA eluate.	Increase the volume of Extraction Buffer to ensure complete lysis/ homogenisation. Be sure to centrifuge and pellet any cellular 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.	**To remove RNA:** 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 not stored at appropriate conditions.	**To prevent DNA degradation:** Immediately collect and lyse samples into a Extraction Buffer.

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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

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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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