EcoSpin Insect Genomic DNA Kit

50 rxns
Cat No: E1080

Shipping : Ship at ambient temperature.
Storage : Store the Kit between 15°C and 25°C.
Store Proteinase K at -20°C
Store RNAse A at -20°C

General Information

EcoSpin Insect Genomic DNA Kit is designed as a simple and convenient purification of high quality genomic DNA from 30-50 mg insects. This kit utilizes chaotropic ions and silica-based membrane technology, eliminating the need for expensive resins, hazardous phenol-chloroform extractions, or time-consuming alcohol precipitation. The standard protocol lasts less than 25 minutes and purified DNA can be used directly in PCR, qPCR, Southern blotting and enzymatic reactions.

Kit Contents

EcoSpin Resuspension Buffer	(15 ml)
EcoSpin Tissue Lysis Buffer	(15 ml)
EcoSpin Binding Buffer	(22 ml)
EcoSpin Wash Buffer 1 *	(13 ml)
EcoSpin Wash Buffer 2 **	(8 ml concentrate)
EcoSpin Elution Buffer	(10 ml)
EcoSpin RNAse A#	(lyophilized)
EcoSpin Proteinase K#	(lyophilized)
EcoSpin Columns	(50)
EcoSpin Collection Tubes	(50)

*Add 8.8 ml absolute ethanol
**Add 32 ml absolute ethanol

#Reconstitute Proteinase K in 1.1 ml Proteinase K Storage Buffer. Reconstitute RNase A in 1.1 ml RNase Reconstitution Buffer. Proteinase K and RNase A solutions are stable for 1 year when stored at 4ºC. For long-term storage (>1 year) store Proteinase K and RNase A solutions at -20ºC.

Protocol for Insect Genomic DNA

Each isolation procedure is suitable for isolation of genomic DNA from 30-50 mg insects. Typical DNA yield for 50 mg insect is up to 20 µg. If extraction of genomic DNA from more sample is required, scale up the amounts of reagents used in the entire protocol proportionally.

1. Grind the sample in liquid nitrogen and transfer the grinded sample into a 1.5 ml microcentrifuge tube. Add 200 µl *EcoSpin* Resuspension Buffer.

2. Add 200 µl *EcoSpin* Tissue Lysis Buffer and mix thoroughly. Add 20 µl *EcoSpin* Proteinase K and mix well. Incubate at 55°C for 3 hours.

3. Centrifuge at maximum speed in a tabletop microcentrifuge 1 minute at room temperature. Transfer the supernatant to a new 1.5 ml microcentrifuge tube (not provided).

4. Add 20 µl *EcoSpin* RNase A to the mixture. Incubate for 3 minutes at room temperature.

5. Add 400 µl *EcoSpin* Binding Buffer, then add 200 µl absolute ethanol and mix well.

6. Insert an *EcoSpin* Column into a Collection Tube and transfer the sample from step 5 to the *EcoSpin* Columns. Centrifuge at maximum speed in a tabletop microcentrifuge 1 minutes at room temperature.

7. Discard the flowthrough and add 400 µl *EcoSpin* Wash Buffer 1 to the *EcoSpin* Column. Centrifuge at maximum speed in a tabletop microcentrifuge 1 minutes at room temperature.

8. Discard the flowthrough and add 500 µl *EcoSpin* Wash Buffer 2 to the *EcoSpin* Column. Centrifuge at maximum speed in a tabletop microcentrifuge 30 seconds at room temperature.

9. Discard the flowthrough and add 200 µl *EcoSpin* Wash Buffer 2 *EcoSpin* Column at maximum speed for 2 minutes to completely remove any residual wash buffer.

10. Transfer the *EcoSpin* Column to a clean 1.5 mL microcentrifuge tube (not included).

11. Add 30-50 µL of *EcoSpin* Elution Buffer to the center of the *EcoSpin* Column membrane and incubate the column at room temperature for 5 minutes.

12. Centrifuge at maximum speed in a tabletop microcentrifuge 30 seconds at room temperature.

13. Discard the *EcoSpin* Column and store the purified DNA at -20°C.

For further information;
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