EcoSpin FFPE Genomic DNA Kit

50 rxns

Cat No: E3095
Shipping : Ship at ambient temperature.
Storage : Store the kit between 15°C and 25°C. Store Proteinase K and RNAse A at -20°C.

General Information

EcoSpin FFPE Genomic DNA Kit is designed as a simple and convenient purification of genomic DNA from formalin-fixed, paraffin-embedded (FFPE) tissue materials. 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 approximately 5 hours at room temperature and purified DNA can be effectively used in routine downstream applications.

Kit Contents

EcoSpin Pre-Lysis Buffer	(8 ml)
EcoSpin FFPE Lysis Buffer	(8 ml)
EcoSpin Binding Buffer	(22 ml)
EcoSpin Wash Buffer 1*	(13 ml)
EcoSpin Wash Buffer 2*	(10 ml concentrate)
EcoSpin Elution Buffer	(5 ml)
EcoSpin Proteinase K#	(lyophilized)
EcoSpin RNse A#	(lyophilized)
EcoSpin Columns	(50)
EcoSpin Collection Tubes	(50)

*Add 8.8 ml absolute ethanol
*Add 40 ml absolute ethanol

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

Protocol for FFPE Genomic DNA

Each isolation procedure is suitable for isolation of genomic DNA from up to 5 freshly cut sections of up to 20 µm thick from the interior of an FFPE tissue block. A total of up to 250 mm^2 surface area is recommended as starting material. If extraction of genomic DNA from more sections is required, scale up the amounts of reagents used in the entire protocol proportionally.

1. Transfer the sections into a DNase-free microcentrifuge tube. Remove any excess paraffin.

2. Add 1 mL of xylene to the sample. Incubate at 50°C for 5 minutes. Mix by vortexing.

3. Centrifuge at maximum speed for 2 minutes.

4. Carefully remove the xylene completely.

5. Add 1 mL of 96 - 100% ethanol. Mix by vortexing.

6. Centrifuge at maximum speed for 2 minutes and discard the supernatant.

7. Repeat steps 5-6.

8. Air dry the pellet for about 10 minutes at room temperature to completely remove the residual ethanol.

9. Add 100 µl *EcoSpin* Pre-Lysis Buffer and mix well by vortexing or pipetting up and down.

10. Add 100 µl *EcoSpin* FFPE Lysis Buffer and mix thoroughly. Add 20 µl *EcoSpin* Proteinase K and mix well. Incubate at 55°C for at least 3 hours or until the tissue samples are completely lysed with frequent vortexing.

11. Incubate at 90°C for 1 hour with frequent vortexing.

12. Cool down to room temperature and add 20 µl of *EcoSpin* RNase A to the mixture. Incubate at room temperature for 3 min.

13. Add 400 µl *EcoSpin* Binding Buffer and mix well.

14. Add 200 µl absolute (96-100%) ethanol and mix well by vortexing for 10 seconds.

15. Insert an *EcoSpin* Column into a Collection Tube and transfer sample from step 14 to the *EcoSpin* Columns. Centrifuge at maximum speed in a tabletop microcentrifuge 30 sec at room temperature. Depending on your lysate volume, repeat Step 14 as necessary.

16. Discard the flow through and add 400 µl *EcoSpin* Wash Buffer 1 to the *EcoSpin* Column. Centrifuge at maximum speed in a tabletop microcentrifuge 30 seconds at room temperature.

17. Discard the flow through 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.

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

19. Transfer the *EcoSpin* Column to a clean DNase-free 1.5 mL microcentrifuge tube (not provided).

For further information;
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20. 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.

21. Centrifuge at maximum speed in a tabletop microcentrifuge 1 minute at room temperature. Be sure for the complete collection of eluate at the end of centrifugation.

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

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