

EcoSpin Blood Genomic DNA Kit

50 rxns

Cat No: EcoBGD-50x

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 Blood Genomic DNA Kit is designed as a simple and convenient purification of high quality genomic DNA from whole blood. 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

<i>EcoSpin</i> Lysis Buffer	(15 ml)
<i>EcoSpin</i> Binding Buffer	(22 ml)
<i>EcoSpin</i> Wash Buffer 1 *	(13 ml)
<i>EcoSpin</i> Wash Buffer 2 **	(8 ml concentrate)
<i>EcoSpin</i> Elution Buffer	(10 ml)
<i>EcoSpin</i> RNase A#	(lyophilized)
<i>EcoSpin</i> Proteinase K#	(lyophilized)
<i>EcoSpin</i> Columns	(50)
<i>EcoSpin</i> 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 4°C. For long-term storage (>1 year) store Proteinase K and RNase A solutions at -20°C.

Protocol for Blood Genomic DNA

Each isolation procedure is suitable for isolation of genomic DNA from 200 µl whole blood sample. If extraction of genomic DNA from higher volumes of whole blood is required, use Red Blood Cell Lysis buffer (10x, Cat No: RBCLB-10x) of EcoTech Biotechnology to isolate white blood cells from upto 9 ml of whole blood and continue with those cells.

1. Add 200 µl *EcoSpin* Lysis Buffer to each 200 µl whole blood sample. Mix well.
2. Add 20 µl *EcoSpin* RNase A to the mixture from step 1 and mix well. Incubate for 3 minutes at room temperature.
3. Add 20 µl *EcoSpin* Proteinase K to the mixture and mix well. Incubate for 10 minutes at 55°C. Extending incubation time to 30 minutes can help increasing the yield. To isolate DNA from parasites, incubation time should be extended (from 3 hours to overnight).
4. Add 400 µl *EcoSpin* Binding Buffer and mix well.
5. Insert an *EcoSpin* Column into a Collection Tube and transfer the sample from step 4 to the *EcoSpin* Columns. Centrifuge at maximum speed in a tabletop microcentrifuge 1 minute at ambient temperature.
6. Discard the flowthrough and add 400 µl *EcoSpin* Wash Buffer 1 to the *EcoSpin* Column. Centrifuge at maximum speed in a tabletop microcentrifuge 1 minute at room temperature.
7. 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.
8. 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.
9. Transfer the *EcoSpin* Column to a clean 1.5 mL microcentrifuge tube (not included).
10. 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.
11. Centrifuge at maximum speed in a tabletop microcentrifuge 30 seconds at room temperature.
12. Discard the *EcoSpin* Column and store the purified DNA at -20°C.