

EcoSpin Cell Genomic DNA Kit

50 rxns

Cat No: E1055

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 Cell Genomic DNA Kit is designed as a simple and convenient purification of high quality genomic DNA from cultured cells. 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> Resuspension Buffer | (15 ml) |
| <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 Cell Genomic DNA

Each isolation procedure is suitable for isolation of genomic DNA from 10⁴ to 10⁶ cells. If extraction of genomic DNA from more cells is required, scale up the amounts of reagents used in the entire protocol proportionally.

1. Trypsinize and centrifuge the cells and resuspend the pellet in 200 µl *EcoSpin* Resuspension Buffer by vortexing or pipetting up and down until no cell clumps remain.
2. Add 200 µl *EcoSpin* Lysis Buffer and mix thoroughly. 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 and mix well. Incubate for 10 minutes at 55°C. Extending incubation time to 30 minutes can help increasing the yield.
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 room 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.