WIRAGEN
Enseignement et Recherche

WiraSpin® FFPE Genomic DNA Extraction Kit

Ref : EA10

WiraSpin® FFPE DNA Purification Kit offers a robust solution for isolating DNA from formalin-fixed paraffin-embedded tissue samples using silica spin column technology. Designed for ease of use and maximum efficiency, this kit provides a streamlined protocol to remove paraffin, lyse tissue, and purify DNA, enabling high-quality yields suitable for PCR, sequencing, and other molecular applications. With clear instructions and safety precautions, researchers can confidently extract DNA from challenging FFPE specimens, facilitating valuable insights in molecular biology and pathology.

NB : Add 1 ml of ddH2O to the Proteinase K to achieve a concentration of 20 mg/ml and store at -20°C .

Components	20 rx	50 rx
Binding bondingBuffer 10 (LBB10)	4 ml	10 ml
Inhibitor Clean Buffer 10 (ICB10)	7 ml	15 ml
Wash Buffer 10 (WB10)	5 ml	10 ml
Elution Buffer 10 (EB10)	2 ml	5 ml
Lyophilized Proteinase K	10 mg	20 mg
Genomic Spin Columns with Collection Tubes	20	50

Operating Mode

Before starting, add the specified volume of absolute ethanol to solutions ICB4 and WB4.

Components	**20 rx**	**50 rx**
Inhibitor Clean Buffer 10 (ICB10)	4,2 ml	9 ml
Wash Buffer 10 (WB10)	20 ml	40 ml

All centrifugation steps are performed at room temperature.
Sample Preparation

Defparaffinization

1- FFPE Sample Block: Remove excess paraffin from the tissue and collect 10 to 30 mg of tissue using a scalpel

2- FFPE Sectioning: Place 3 to 10 sections (5 to 10 µm thick) into a sterile 1.5 ml microcentrifuge tube. (If extraction is to be performed later, it is recommended to cut 3 to 10 tissue pieces directly from the sections and store them at 4°C).

Téléphone : 041 40 42 27 / 06 59 19 60 33
Facebook/Instagram : Wiragen Academy
Site : www.wiragen.com
E-mail : contact@wiragen.com / wiragen.academy@gmail.com
Siège social : Local 01 lotissement Si Redouane 02 N°16 Senia
Siège formation : 12 Rue de Nancy, Résidence Col.Othmane, Oran

3- Add 1 ml of xylene to the sample, close the lid, and vigorously vortex for 10 seconds. Centrifuge at 12,000 × g for 2 minutes, then remove the supernatant by pipetting. (This step should be performed with caution in a chemical hood as xylene is a highly toxic chemical. Avoid contact with skin, eyes, and respiratory tract. Also, keep away from flames during the operation).

4- Add 1 ml of ethanol (96-100%) to the pellet and mix by vortexing. Centrifuge at 12,000 × g for 2 minutes, then remove the supernatant by pipetting.Open the tube and incubate at room temperature or up to 37°C until all residual ethanol has evaporated.

Rapid Deparaffinization SOLUTION

Wiragen has developed a rapid and efficient paraffin removal solution based on an innovative combination of chemical agents and treatment techniques. This solution effectively removes paraffins, allowing for efficient optimization of production and processing operations.

Operating mode

- remove as much paraffin as possible from your sample.
- Add 300 µl of rapid paraffin removal solution to 20 to 50 mg of FFPE tissue and incubate at 90 degrees Celsius for 20 minutes.
- Proceed with extraction.

Extraction

1- Add 200 µl of LBB and 20 µl of Proteinase K and mix well by vortexing. Incubate at 56°C for 1 hour until the sample is completely lysed. Incubate at 90°C for 1 hour. Briefly centrifuge the tube to collect condensed water vapor droplets on the lid. The duration of the 90°C water bath must be strictly controlled. Otherwise, more DNA fragments may be generated. Thus, if there is only one water bath or heating block, we suggest initially leaving the sample at room temperature and starting the incubation until the water bath or heating block reaches 90°C. If genomic DNA free of RNA is required, add 10 µl of RNase A to the lysate and incubate at room temperature for 2 minutes.
2- Add 300 µl of isopropanol to the sample and mix well by vortexing. Transfer all the lysate into a genomic spin column, centrifuge the column at 12,000 g for 1 minute, and discard the liquid.
3- Add 500 µl of CB (with added ethanol) and centrifuge at 12,000 g for 30 seconds, discard the liquid
4- Add 500 µl of WB (with added ethanol) and centrifuge at 12,000 g for 30 seconds, discard the liquid.
5- Repeat step 4 once.
6- Centrifuge the spin column at 15,000 g for 2 minutes, open the tube, and allow the spin column to air dry in a sterile 1.5 ml microcentrifuge tube for 15 minutes.
7- Add 30 to 100 µl of EB (preheated to 65°C for higher yield), incubate at room temperature for 1 minute, centrifuge at 12,000 g for 1 minute to elute the DNA.

Remarks

- It is important not to overload the column, as this can result in significantly lower yields than expected.
- If you notice that the centrifugation spin column is overloaded, please repeat the centrifugation process.