RUO

REF	G2MBR4-0591	50 Tests
	G2MBR4-0592	250 Tests

DBS DNA Extraction kit (Dried Blood Spot)

Intended Use

The SpiNXT DBS DNA Extraction kit (Dried Blood Spot) is intended for the extraction of DNA from dried blood spot samples. The blood should be spotted and dried on suitable filter paper or specimen collection cards.

Intended User

The SpiNXT DBS DNA Extraction kit (Dried Blood Spot) is intended for use by molecular biologists or research laboratory professionals.

Test Principle

The SpiNXT DBS DNA Extraction kit (Dried Blood Spot) utilizes a proprietary combination of enzymes, buffers, and resins to extract DNA from dried blood spot samples. The unique formulation of the kit enables efficient lysis of the blood cells, removal of inhibitors, and purification of high-quality DNA. The resulting DNA is suitable for downstream molecular applications, such as PCR, qPCR, and sequencing.

Summary

The SpiNXT DBS DNA Extraction kit (Dried Blood Spot) is a proprietary solution designed for the efficient extraction of high-quality DNA from dried blood spot samples. Purification requires no phenol/chloroform extraction or alcohol precipitation, involves minimal handling and simple centrifugation processing which completely removes contaminants and enzyme inhibitors, such as proteins and divalent cations.

Storage, Operating Conditions and Stability

- The kit has a shelf life of 18 months from the date of manufac turing.
- The test kit and its component are stable until the expiration date mentioned on the kit box.
- All the kit components is shipped and stored at 15°C to 25°C.

Reagents Provided

Table 1a. (For 50 Tests)

Kit Contents	Kit Content Code	Kit Content Quantity G2MBR4-0591
DBS Lysis Buffer	G2MBR3-1970-1	1 X 30 ml
Buffer DW1	G2MBR3-1971-1	1 X 12 ml
Buffer DW2	G2MBR3-1972-1	1 X 12 ml
Proteinase K	G2MBR3-1973-1	1 X 20 mg
Protease Dissolve Buffer	G2MBR3-1974-1	1 X 2 ml
Buffer AE	G2MBR3-1975-1	1 X 10 ml

Consumables Provided
Table 1b. (For 50 Tests)

Kit Contents	Kit Content Quantity G2MBR4-0591
Mini Column	1 X 50 Nos.
Collection Tube	1 X 50 Nos.

Reagents Provided
Table 2a. (For 250 Tests)

Kit Contents	Kit Content Code	Kit Content Quantity G2MBR4-0592
DBS Lysis Buffer	G2MBR3-1970-2	1 X 130 ml
Buffer DW1	G2MBR3-1971-2	1 X 60 ml
Buffer DW2	G2MBR3-1972-2	2 X 30 ml
Proteinase K	G2MBR3-1973-2	1 X 100 mg
Protease Dissolve Buffer	G2MBR3-1974-2	1 X 6 ml
Buffer AE	G2MBR3-1975-2	1 X 30 ml

Consumables Provided
Table 2b. (For 250 Tests)

Kit Contents	Kit Content Quantity G2MBR4-0592
Mini Column	2 X 125 Nos.
Collection Tube	2 X 125 Nos.

Materials Required but Not Provided

- Water bath or Heat block
- Micropipettes (Adjustable)
- Disposable barrier (Filter) pipette tips
- 1.5/2 ml microcentrifuge tubes
- Table top microcentrifuge
- Molecular biology grade ethanol (96-100 %)
- Personal protective equipment (Aprons, disposable gloves, goggles etc).
- 1X PBS

⚠ Instructions Before Use

- Switch on the water bath at 85 °C & 56°C before starting of the experiment.
- Use preheated Buffer AE for efficient DNA yield.
- Use sterile 1.5/2 ml microcentrifuge tubes.
- Dilute Buffer DW1 & DW2 with an appropriate amount of molecular biology grade ethanol (96-100 %) as shown on label and store at room temperature.
- Add Protease Dissolve Buffer to the Proteinase K, final concentration should be 20 mg/ml. For long term storage, the unused portion of the solution can be stored in aliquots at -20 °C until needed.

Protocol

DNA Purification from Dried Blood Spots

1) Cut out the section of filter which contains the dried sample and place it in a sterile 1.5 ml microcentrifuge tube.
2) Add 300 µl of 1X PBS and incubate for 5-10 min at room temperature.
3) Add 300 µl DBS Lysis Buffer and incubate at 85 °C for 20 min.
4) Following efficient lysis, add 200 µl DBS Lysis Buffer with additional 20 µl Proteinase K and incubate it at 56 °C for 20 min.
5) Centrifuge it at 10,000 x*g* for 2 min.
6) Collect the supernatant into a new 1.5/2 ml microcentrifuge tube and add 0.5 ml of chilled molecular biology grade ethanol (96-100 %). Leave the tubes at room temperature for 5 min, followed by manually creating a vortex by striking the tube forward and down with your finger and thumb.
7) Transfer whole of the lysate onto a Mini Column and centrifuge it at 10,000 x*g* for 1 min. Discard the flowthrough and place it back into the collection tube.
8) Place the Mini Column into a fresh Collection Tube (2 ml) and add 500 µl Buffer DW1. Centrifuge for 1 min at 10,000 x*g*. Discard the flowthrough.
9) Place the Mini Column back into the Collection Tube (2 ml) and add 500 µl Buffer DW2. Centrifuge for 1 min at 10,000 x*g*. Discard the flowthrough.
10) Repeat step 9.
11) Dry spin: Centrifuge the tube one more time at full speed or at 20,000 x*g* for 2 min.

12) Place the column into a fresh 1.5/2 ml microcentrifuge tube and apply 30-50 µl of 50 °C prewarmed Buffer AE directly to the centre of the silica membrane. Incubate at room temperature (18-25 °C) for 3-5 min. Centrifuge at 6,000 x*g* for 1 min.

13) The purified DNA sample can be stored at 4 °C for a few days. It is recommended that DNA samples be placed at -20 °C or -80 °C for long-term storage.

Symbols for Use in the Labeling	
Symbols	**Definition**
	KEEP AWAY FROM SUNLIGHT
	TEMPERATURE LIMIT
	RESEARCH USE ONLY
	UPWARD
	CONSULT INSTRUCTIONS FOR USE
	BATCH CODE
	CATALOGUE NUMBER
	USE BY DATE
	DATE OF MANUFACTURE
	MANUFACTURER
	CONTAINS SUFFICIENT FOR <n> TESTS
	CAUTION
	DO NOT USE IF PACKAGE IS DAMAGED

Genes 2Me Private Limited Plot No - 33 Sector-5, IMT Manesar, Gurugram, Haryana - 122052 (India), Telephones No.: +91 18001 214030 / +91 88000 23600 / +91 8800821778, Email: contact@genes2me.com