RUO

REF	G2MBR4-0912	50 Tests
	G2MBR4-0913	250 Tests

SPINXT

Soil DNA Extraction Kit

Intended Use

The SpiNXT Soil DNA Extraction Kit is intended for molecular biology applications. This product is not intended for the diagnosis, prevention, or treatment of neither a disease nor it is suitable for administration to humans or animals. All due care and attention should be exercised in the handling of the products.

Intended User

SpiNXT Soil DNA Extraction Kit is intended for use by molecular biologists or research laboratory professionals.

Test Principle

This procedure simplifies extraction of DNA from soil samples by the spin column procedure. The nucleic acid is preferentially purified from other cellular components and other cell debris using an optimized lysis buffer. To remove soil-based inhibitors from environmental DNA further, a unique inhibitor removal buffer is added which significantly reduces the copurification of PCR inhibitors with minimal loss of DNA yield. After lyses, only the DNA is bound to the silica gel membrane. The bound DNA is then washed with the provided wash buffer in order to remove any remaining impurities, and the purified DNA is eluted with Buffer EB.

Summary

SpiNXT Soil DNA Extraction Kit comes up with the simplest and the convenient way for the detection of micro-organisms from soil samples. Different variety of soil samples can be treated, including common soil and difficult soil with high humic acid and PCR inhibitors utilizing silica based spin column procedure. The kit combines the features and advantages of silica binding with a micro spin format, and eliminates the need of hazardous compounds such as phenol/chloroform extraction or alcohol precipitation and involves minimal handling. DNA binds specifical-ly to the silica-gel membrane in the spin column while contaminants pass through. The purified DNA is suitable for various sensitive down-streaming molecular biology applications including PCR, Southern Blot Analysis and so on.

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 G2MBR4-0912
Buffer LBS-1	G2MBR3-2109-1	40 ml
Buffer LBS-2	G2MBR3-2110-1	5 ml
Buffer SBB	G2MBR3-2111-1	15 ml
Buffer IR1	G2MBR3-2112-1	10 ml
Buffer IR2	G2MBR3-2113-1	50 ml
Buffer W1	G2MBR3-2114-1	15 ml
Buffer EB	G2MBR3-2115-1	10 ml

Consumables Provided

Table 1b. (For 50 Tests)

Kit Contents	Kit Content Quantity G2MBR4-0912
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 G2MBR4-0913
Buffer LBS-1	G2MBR3-2109-2	195 ml
Buffer LBS-2	G2MBR3-2110-2	15 ml
Buffer SBB	G2MBR3-2111-2	65 ml
Buffer IR1	G2MBR3-2112-2	60 ml
Buffer IR2	G2MBR3-2113-2	260 ml
Buffer W1	G2MBR3-2114-2	75 ml
Buffer EB	G2MBR3-2115-2	30 ml

Consumables Provided

Table 2b. (For 250 Tests)

Kit Contents	Kit Content Quantity G2MBR4-0913
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 ml microcentrifuge tubes (RNase and DNase free)
- Table top microcentrifuge
- Molecular biology grade ethanol (96-100%)
- Personal protective equipment (Aprons, disposable gloves, goggles etc).

⚠Instructions Before Use

- Wash buffer 1 is supplied as concentrate. Before using for the first time, add the appropriate volume of molecular biology grade ethanol (96-100%) as indicated on the bottle and shake thoroughly.
- Wash buffer 1 is stable for at least 12 months after the addition of ethanol when stored closed at room temperature (15°C to 25°C).

Protocol

1). Take for about 0.25 gm of Soil sample (dry or wet) to a fresh 1.5 ml microcentrifuge tube and then add 750 µl of Buffer LBS-1. Vortex the samples for 1-2 min.

2). Add 60 µl of Buffer LBS-2 to the microcentrifuge tube and place it on a thermo shaker at 1700rpm settled at room temperature for about 10 min for a thorough mixing.

3). Centrifuge the tube at 10,000x*g* for 30 sec and then transfer the supernatant to a new microcentrifuge tube.

4). Add 250 µl of Buffer SBB and vortex it again for 30-60 sec. Further, incubate the sample at 4°C for 10 min and then centrifuge the tube at 10,000xg for 1 min at room temperature. Transfer the supernatant to a new tube.

5). Add 200 µl of Buffer IR1 and incubate the sample at 4°C for 10 min.

6). Centrifuge the tube at 10,000x*g* for 10 min at room temperature and transfer the supernatant to fresh 1.5 microcentrifuge tube.

7). Add 1 ml of Buffer IR2 and mix it by inverting the microcentrifuge tube.

8). Pipette the mixture on to the Mini Column and centrifuge at 10,000x*g* for 30 sec. (Repeat the step 8 until whole solution gets transferred to the spin column). Discard collection tube with flow-through. Place the Mini Column back into the collection tube (2 ml).

9). Add 500 µl of Buffer W1 to the spin column and centrifuge it at 10,000x*g* for 1 min.

10). Dry spin: Centrifuge the tube one more time at full speed or 20,000x*g* for 2 min.

11). Place the column into a fresh 1.5 ml microcentrifuge tube and apply 100 µl Buffer EB directly to the centre of the silica mem-brane. Incubate at room temperature (15°C to 25°C) for 3-5min. Centrifuge at 10,000x*g* for 1 min.

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

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