V02

Soil Genomic DNA Kit

Cat No.: D2600

Package: 50T/100T

Storage: Dry storage at room temperature (15℃-25℃), valid for 12 months.

Kit content:

Component	50T	100T	Storage
Solution SA	30mL	60mL	RT
Solution SB	40mL	80mL	RT
Solution SC	5mL	10mL	RT
Solution SD	6mL	12mL	RT
Solution SE	35mL	70mL	RT
Wash Buffer 1	21mL	42mL	RT
Wash Buffer 2	7.5mL	15mL	RT
Grinding Beads	13g	26g	RT
Column（Include collection tube）	50T	100T	RT
Elution Buffer	2mL	4mL	RT
Instruction	1	1	-

Product description:

This kit is suitable for extracting microbial DNA from various soil environments, including humus soil, brown soil, silt, and volcanic ash. It has a good lysis effect on various bacteria and fungi in the soil, and maximizes the polymorphism of microbial DNA. This kit adopts the unique humus adsorption material of our company, which can remove various humus components efficiently and specifically without affecting the yield of DNA. The purity is several times higher than that of phenol and chloroform extraction. The DNA extracted using this kit has a large yield and good integrity, and can be directly used in various routine operations, including enzyme digestion, PCR, library construction, Southern hybridization and other experiments.

Operation steps (for reference only):

Before use, please add absolute ethanol to the rinse solution 1 and the rinse solution 2, and refer to the label on the bottle body. All centrifugation steps were centrifuged at room temperature using a benchtop centrifuge (50T, 9mL and 22.5mL in bleach 1 and 2100T, bleach 1 and 18mL and 45mL in 2, respectively).

1. Take 0.25g of soil sample in a 2mL centrifuge tube, add 500 μL of solution SA, vortex, shock and mix well.
2. The samples were centrifuged at 12000rpm for 1min and the supernatant was aspirated using a pipette.
3. 0.25g of ground beads was added to the above soil precipitate, 720μL of solution SB was added,

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and 80 μ L of solution SC was shaken for 10min.
4. Centrfuge at 12000rpm for 1min and draw 650μL supernatant into a new 2mL centrifuge tube.
5. Add 100μL of solution SD and 700μL of solution SE to the above centrifuge tube.
6. The solution from the above centrifuge tubes was added to the adsorption column with a maximum of 700μL each time, let stand for 1min and centrifuged at 12000rpm for 1min.
7. Remove the waste liquid from the collection tube and add 500μL of rinse solution 1 to the adsorption column (check for absolute ethanol before use).
8. Was centrifuged at 12000rpm for 1min.
9. Remove the waste liquid from the collection tube and add 500μL of rinse solution 2 to the adsorption column (check for absolute ethanol before use).
10. Was centrifuged at 12000rpm for 1min.
11. The air control tube was centrifuged at 12000rpm for 2min.
12. Remove the adsorption column, open the lid, and dry at room temperature for 10min, or 50℃ for 1min.
13. The adsorption column was placed into a new centrifuge tube with 30μL of eluate and centrifuged at 12000rpm for 1min as the soil microbial DNA solution.

Note:
1. Fresh soil samples will get a higher yield, and different samples should consult the corresponding optimal preservation conditions before sampling.
2. If there is turbidity in the solution, it can be dissolved in 37℃ water bath for a while to clear and will not affect the results.
3. The absorption of the sediment should be avoided from the supernatant, otherwise the adsorption column will be blocked and the product purity will be affected.
4. The volume of elution buffer should not be less than 50μL, affecting the recovery efficiency; it is recommended to use the elution buffer provided with the kit, and eluting with water; DNA should be kept at-20℃ to avoid repeated freezing and thawing to prevent degradation.
5. If the product contains humic residue, it will seriously affect the light absorption value of DNA, which should be identified by a combination of electrophoresis detection and spectrophotometer detection.
6. Liquid reagents to avoid contact with the skin, if accidental contact should be immediately washed with a lot of water.

Related products:
D1010 6×DNA Loading Buffer
T1060 50×TAE Buffer
T1050 5×TBE Buffer
M1060 D2000 DNA Ladder
M1400 1kb DNA Ladder
G8142 Gold View IInucleic acid stain (5000×)
D1500 Plant genomic DNA extraction kit
D1600 Bacterial genomic DNA extraction kit
D1700 Animal tissue / cell genomic DNA extraction kit
D1800 Blood genomic DNA extraction kit