

Soil DNA Fast Extraction Kit

(Spin-column)

A fast kit for the isolation of genomic DNA from soil/silt/feces

For laboratory research use only

DP4001 **50 preps**

Kit Content, Storage, and Stability

Content	Storage	50 preps
Extraction buffer	RT	50 ml
Buffer A	-20°C	750 ul
Buffer B	RT	5 ml
Buffer C	RT	25 ml
Buffer D	RT	15 ml
Protein Precipitation Buffer	RT	18 ml
Elution Buffer EB	RT	5 ml
Purification Column AC	RT	50
Collection Tube (2 ml)	RT	50

All reagents are stable for 12 months when stored properly.

Buffer B may form precipitate in the low temperature. If necessary, incubate at 65°C water bath until it's clear, cool down to RT before use.

Avoid the solution in air for a long time; for it could be volatilization, oxidation and pH value change. All the Buffers should be put down the cover after use.

Principle

Unique extracting and cracking system, not only can quickly crack cell wall, but also can inactivate intracellular nuclease, it easily keeping the integrity of genome DNA, Purification column after special treatment can effectively remove the impurity and humic acid. Use this kit can remarkable increase the purity of DNA. It is also fast, quick, suitable for PCR and other downstream reactions.

Features

Purification column after special treatment can effectively remove the impurity and humic acid.

High compatibility, it can be used for different kinds of soil, silt, feces.

It not contain some toxic solution such as phenol, and also needn't ethanol precipitation.

Fast, simple, the single sample can be finish in 60 min.

high purity, the value of OD260/OD280 achieving 1.7-1.9, which can be applied to PCR, Southern-blot and digestions directly.

Notes

Please read this section before your experiment

1. All the centrifugation steps can be performed at room temperature. If Buffers are precipitated (if stored under 4°C), dissolve them in 65°C water bath and cool them to the room temperature before use.
2. Prepare the 70% ethanol by yourself.

3. The sample must be fresh or keep in -80°C, else the genome may show degradation.
4. Prepare 2ml Spin-tube and Isopropanol by yourself.

Procedure

1. Accurately weight 0.3-0.5g fresh soil to a new centrifuge tube, add 1 ml extraction Buffer and 5 µl Buffer A. Vortex for 1-2 min, mix thoroughly and then place into 37°C water bath for 10 min. (mix thoroughly every 2-3 min)
2. Add 100ul Buffer B, Vortex 1-2min, mix thoroughly, add 300 ul Buffer D. Vortex 1-2min, and then place into 65 °C water bath for 10 min. (mix thoroughly every 2-3 min)
3. Centrifuge at 10,000 rpm for 10 min and harvest supernatant to a new 2 ml centrifuge tube.
4. Add 1/3 volume protein precipitation and mix thoroughly.
5. Ice bath for 8 min, then centrifuge at 13,000 rpm for 10 min and harvest supernatant.
6. Precipitation treatment: add 500 ul Buffer C in the middle of purification column, stay for 1 min, centrifuge 30 sec at 10,000 rpm for filtration. Discard flow-through.
7. Add the supernatant harvest from step 5 into treated purification column, centrifuge at 2.000 g. Harvest flow-through (it contains DNA!).
8. Accurately estimate the volume of flow-through, add 0.6 times volume isopropanol, mix thoroughly and centrifuge at 13,000 rpm for 10 min, carefully remove upper suspension, invert the column for 2 min and air dry, and then use 30 ul eluting Buffer EB dissolve the precipitation. (If the precipitation is not clean enough, also can washing by 70% ethanol twice, and then use the EB to dissolve it).