Note: for laboratory research use only

Soil DNA Fast Extraction Kit
(Spin Column)

Cat # DP4601（50preps）
DP4602（100preps）
DP4603（200preps）

ABigen corporation

www.abigen.com Tel:+86-01-13683383835 E-mail: info@abigen.com

Kit Content Storage and Stability:

Kit Content	Storage	50preps （DP4601）	100preps （DP4602）	200preps （DP4603）
Extraction buffer	RT	50 ml	100 ml	200 ml
Buffer A	-20℃	750μl	1.5ml	1.5mlx2
Buffer B	RT	5 ml	10 ml	20 ml
Protein precipitation buffer	RT	18 ml	36 ml	72 ml
Buffer C	RT	25 ml	50 ml	100 ml
Eluting buffer EB	RT	5 ml	10 ml	20 ml
Purification column	RT	50	100	200
Adsorption column	RT	50	100	200

All reagents, when stored properly, are stable for 12 months.

*Note：

1. Buffer B may form precipitation due to low storage temperatures. If necessary, dissolve the precipitation by 65°C water-bath and then cool to room temperature before use.
2. Please ensure the bottles of buffer tightly capped when no in use, preventing reagents evaporating, oxidation and PH changing.

Principle:

In this kit, innovative extraction and lysis system allow for rapidly lysing cells and inactivating cellular nuclease. The treatment of glass beads is eliminated and the integrity of genomic DNA is guaranteed. DNA purity is greatly ensured from efficiently removing debris, contaminants and humic acid by specially treated DNA spin-column. Innovative washing solution removes trace contaminants and pure DNA is eluted in water or low ionic strength Elution Buffer. Purified DNA can be directly used in downstream applications without the need for further purification.

Features:

1. Rapid, DNA isolation under 60 min
2. Compatible, suitable for various soils, stool and other types of soil
3. High purity, Purified DNA typically has an A260/A280 ratio between 1.7 and 1.9
4. Isolated DNA longer than 50Kb and can be directly used for most downstream applications, including PCR, Southern-blot, Restriction digestion reactions, etc.

Notes:

Please read this section before your experiment.

1. **All the centrifugation steps can be performed at room temperature.**

Procedure:

a) Accurately weigh 0.3-0.5g fresh sample to a new centrifuge tube, add 1ml extraction buffer and 5 μl buffer A, Vortex 1-2min ，mix thoroughly and then 37℃ water bath for 10 min.（mix thoroughly every 2-3 min ）.

b) Add 100μl buffer B, Vortex 1-2min, mix thoroughly and then 65℃ water bath for 10 min.（mix thoroughly every 2-3 min ）.

c) Centrifuge at 10,000rpm for 10 min and harvest supernatant to a new 1.5ml centrifuge tube.

d) Add 1/3 volume protein precipitation and mix thoroughly.

e) Ice bath for 8 min, then centrifuge at 13,000rpm for 10 min and harvest supernatant.

f) Add 500μl buffer C in the middle of purification column, still for 1 min , centrifuge at 10,000 rpm for filtration .

g) Add the supernatant harvest from e step into treated purification column, centrifuge at 2000g and filtration. harvest filter liquor(DNA contained).

h) Accuratly estimate the volume of filter liquor, add 0.6 volume isopropanol ,mix thoroughly and centrifuge at 13,000rpm for 10 min, carefully remove upper suspension, invert the column for 2 min and air dry ,and then use 30μl 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 dissolve it)