# MP Biomedicals

# Spin-Column Extraction Kit for Soil gDNA

## SPINeasy DNA Kit for Soil


Soil is one of the most commonly studied environmental sample. It has great variety and rich in biological content. However, the process to extract DNA from soil is not an easy task. Soil particles hinder effective lysis of cell bodies, while humic substances in soil bind irreversibly to DNA. All of which will reduce the yield and purity of extracted DNA.

With decades of experiences in environmental handling, we dedicate to produce the most effective tools for fellow researchers. Proudly presenting the SPINeasy DNA Kit for Soil, a kit specialized to extract gDNA of high yield and purity from various soil types.


## Product Highlights

**01** Lysing Matrix E tube with three kinds of glass beads can effectively lyse cell bodies to release DNA, ensuring non-biased study of the microbiome.

**02** Proprietary lysis buffers to protect released DNA and remove unwanted RNA.

**03** Specially formulated buffers to get rid of humic substances and other inhibitors, greatly improve the purity of extracted gDNA.

**04** Column S1 with high binding capacity and selectivity for gDNA. It is designed with large volume to reduce frequency of liquid transfer.

Free Trial Kit

1. Apply for trial kit at our official website.
2. Feedback after trial and receive a complimentary gift.

## Ordering Information

| Product Name | Format | Cat. No. | Method | Characteristic |
|---|---|---|---|---|
| (NEW) SPINeasy DNA Kit for Soil | 50 preps | 116530050 | Spin-Column | Suitable for various soil types, easy to operate |
| SPINeasy DNA Kit for Soil (Sample) | 5 preps | 116530000 | | |
| FastDNA Spin Kit for Soil | 50 preps | 116560200 | Glassmilk | Suitable for soil type with extremely low biomass content |
| MagBeads FastDNA Kit for Soil | 50 preps | NA | Magnetic Beads | Upcoming product in Sept 2020. Suitable for various soil types, automation possible |

MP™

# MP Biomedicals

# Spin-Column Extraction Kit for Soil gDNA

## 1 Quality and Quantity of Extracted gDNA

Table 1: Quality and quantity of gDNA extracted from various soil samples using SPINeasy DNA Kit for Soil.

| Sample Type | Yield(ng/mg sample) | 260/280 | 260/230 |
|---|---|---|---|
| Organic soil | 47.78±0.21 | 1.79±0.01 | 1.10±0.02 |
| Paddy soil | 16.03±0.06 | 1.94±0.01 | 1.70±0.04 |
| Flowerbed soil | 14.88±0.65 | 1.84±0.01 | 1.20±0.04 |
| Saline soil | 7.55±0.65 | 1.89±0.01 | 1.40±0.00 |
| Desert soil | 1.64±0.19 | 1.85±0.06 | 1.02±0.00 |

SPINeasy DNA Kit for Soil is compatible with various soil types. Extracted gDNA is of high yield and purity.

## 2 Electrophoretic Analysis

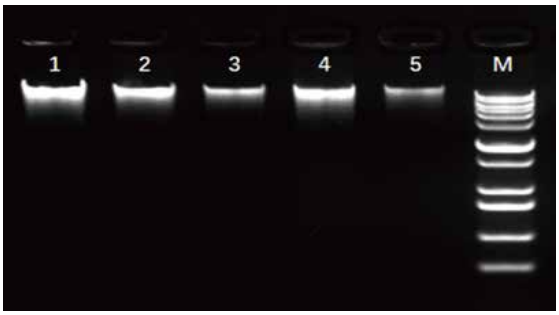



Figure 1: gDNA extracted from different soil samples using SPINeasy DNA Kit for Soil

M: 1kb plus DNA ladder
Lane 1: Organic soil
Lane 2: Paddy soil
Lane 3: Flowerbed soil
Lane 4: Saline soil
Lane 5: Desert soil

Extracted gDNA is highly intact.

## 3 16S rDNA PCR amplication

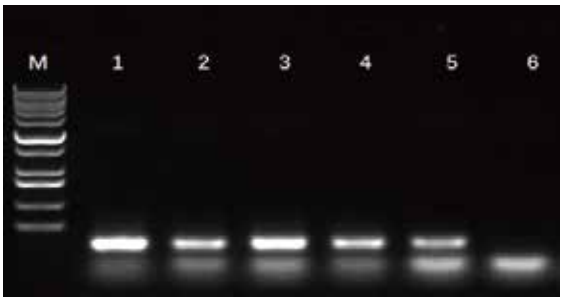
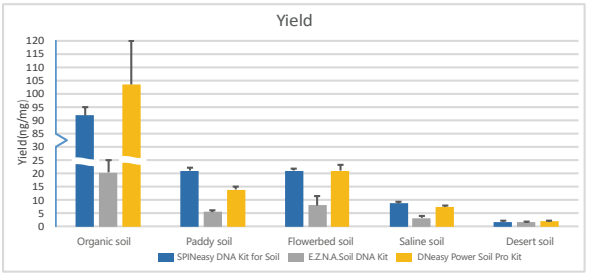


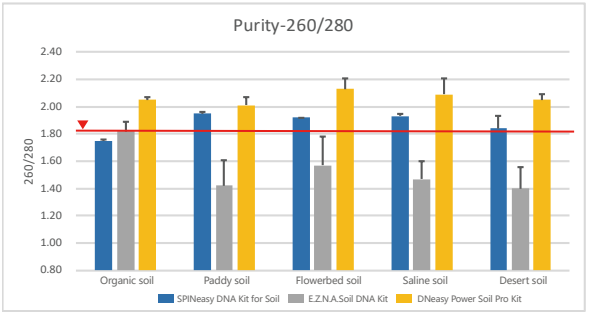

Figure 2: PCR amplification of 16S rRNA gene from different soil samples using SPINeasy DNA Kit for Soil

M: 1kb plus DNA ladder
Lane 1: Organic soil
Lane 2: Paddy soil
Lane 3: Flowerbed soil
Lane 4: Saline soil
Lane 5: Desert soil
Lane 6: Negative control

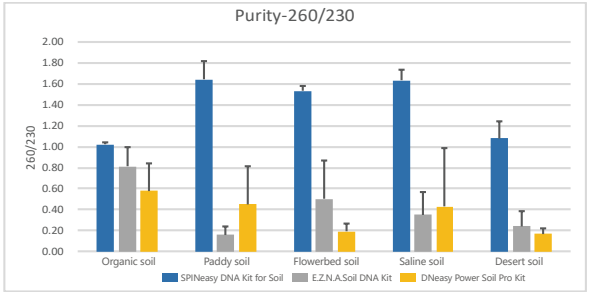
Extracted gDNA is free from inhibitors and ready for downstream analysis.

## 4 Performance Comparison




Remark 1: Pure DNA has 260/280 at 1.80 (Indicated with red line).




Remark 2: Pure DNA has 260/230 > 1.00.

SPINeasy DNA Kit for Soil has consistently achieved better yield and purity as compared to competitor kits.


**MP Bio Americas**
custserv@mpbio.com
1.800.854.0530

**MP Bio Europe**
custserv.eur@mpbio.com
00800.7777.9999

**MP Bio APAC**
asia.custserv@mpbio.com
65.6775.0008

www.mpbio.com