



HIGH YIELDS AND QUICK ISOLATION OF GENOMIC DNA FROM ENVIRONMENTAL SAMPLES

Designed For Manual and Automated DNA Isolation

MagBeads FastDNA™ Kit for Soil



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MAGBEADS FASTDNA KIT FOR SOIL

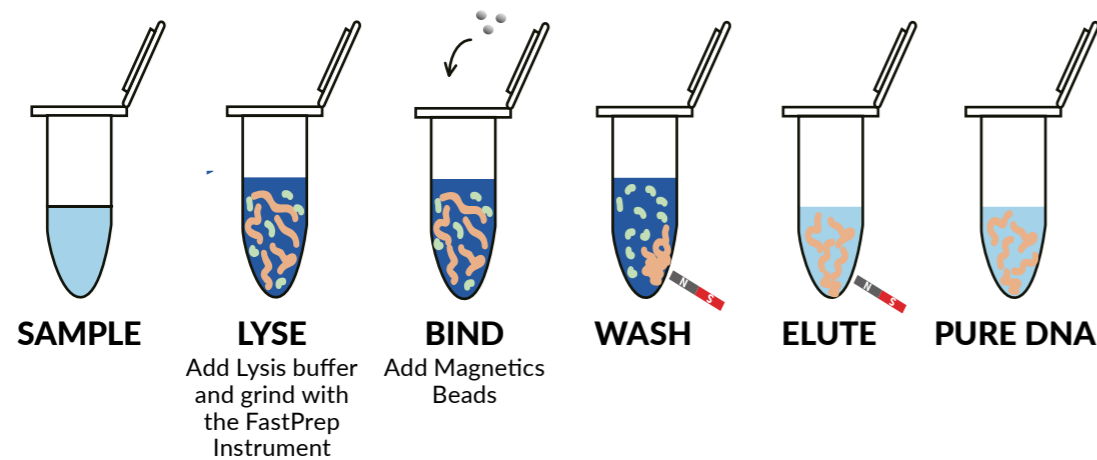
A COMPLETE SOLUTION FOR EXTRACTING DNA

SOIL - SEDIMENT - SLUDGE - WATER - COMPOST - RHIZOSPHERE - PERMAFROST - AND MANY OTHER ENVIRONMENTAL SAMPLES

- ▶ **HIGH YIELD:** Magbeads technology with FastPrep® instrument guarantees high DNA yield extraction
- ▶ **HIGH PURITY:** Uniquely formulated inhibitor removal solution to ensure high level of purity, increased A260/230 ratio and extracted pure DNA is suitable for downstream applications.
- ▶ **HIGH THROUGHPUT:** Perfect integration with automated instruments to deliver high throughput DNA extraction.
- ▶ **WIDE:** Effective DNA extraction from many types of environmental samples
- ▶ **SAFE:** No phenol, chloroform or toxic reagent involved - safe and environmentally friendly.

Extraction can be done manually using a Magnetic Rack. The MagBeads FastDNA™ Kit For Soil can also be adapted to automated nucleic acid extraction instruments for high throughput processing.

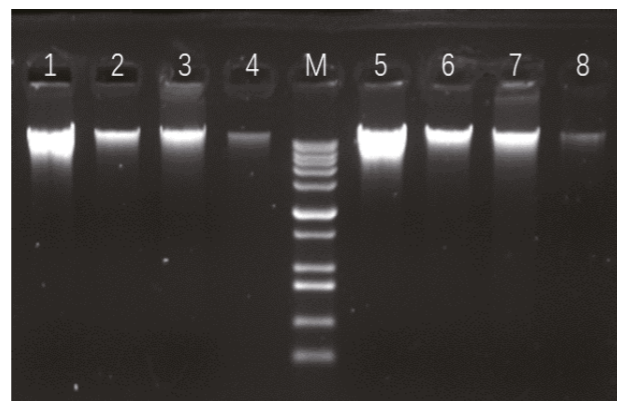
The extraction procedure is made up of four simple steps: Lyse, Bind, Wash and Elute.



DNA EXTRACTION RESULTS

1. Yield and purity of DNA extraction from different types of soil

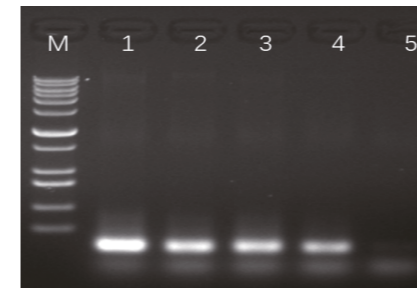
Type of Soil Sample	Extraction Method	DNA Yield (ng/mg sample)	A260/A280	A260/A230
Organic Soil 100 mg	Automation	130.25±4.95	1.84±0.00	1.23±0.02
	Manual	196.08±3.92	1.98±0.02	1.08±0.01
Flowerbed Soil 100 mg	Automation	19.92±0.95	1.86±0.01	1.53±0.03
	Manual	24.43±0.74	1.85±0.02	1.09±0.03
Saline Soil 250 mg	Automation	11.75±0.37	1.87±0.02	1.51±0.05
	Manual	13.43±0.39	1.90±0.01	1.37±0.03
Desert Soil 250 mg	Automation	2.47±0.13	1.85±0.00	1.43±0.03
	Manual	2.97±0.13	1.91±0.03	0.81±0.02



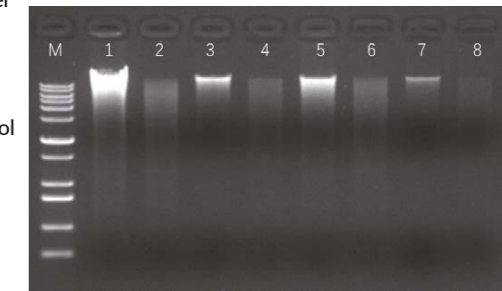
Note: Sample is considered pure if it has A260/A280 ratio of 1.7- 2.0, and A260/A230 ratio of >1.0.

Results from different soil samples Organic soil sample 3 μ L; other soil samples 8 μ L, M: 1kb plus DNA ladder, Lane 1-4: Automation, Lane 5-8: Manual, Lane 1&5: 100 mg Organic Soil, Lane 2&6: 100 mg Flowerbed Soil, Lane 3&7: 250 mg Saline Soil, Lane 4&8: 250 mg Desert Soil

2. PCR amplification and restriction enzyme digestion using gDNA extracted from various types of soil



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

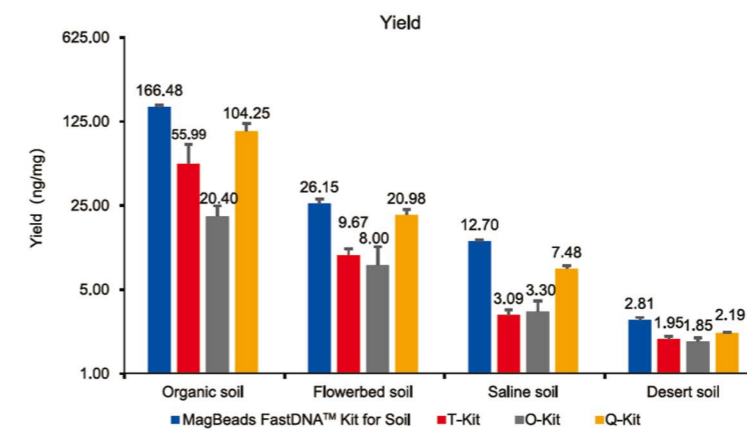


M: 1kb plus DNA ladder
Lane 1/3/5/7: Before enzyme digestion
Lane 2/4/6/8: After enzyme digestion
Lane 1&2: Organic soil
Lane 3&4: Flowerbed soil
Lane 5&6: Saline soil
Lane 7&8: Desert soil

Conclusion: Magbeads FastDNA™ Kit for Soil successfully extracted DNA from different types of soil, DNA can be used directly for downstream applications such as PCR amplification, restriction enzyme digestion, and sequencing.

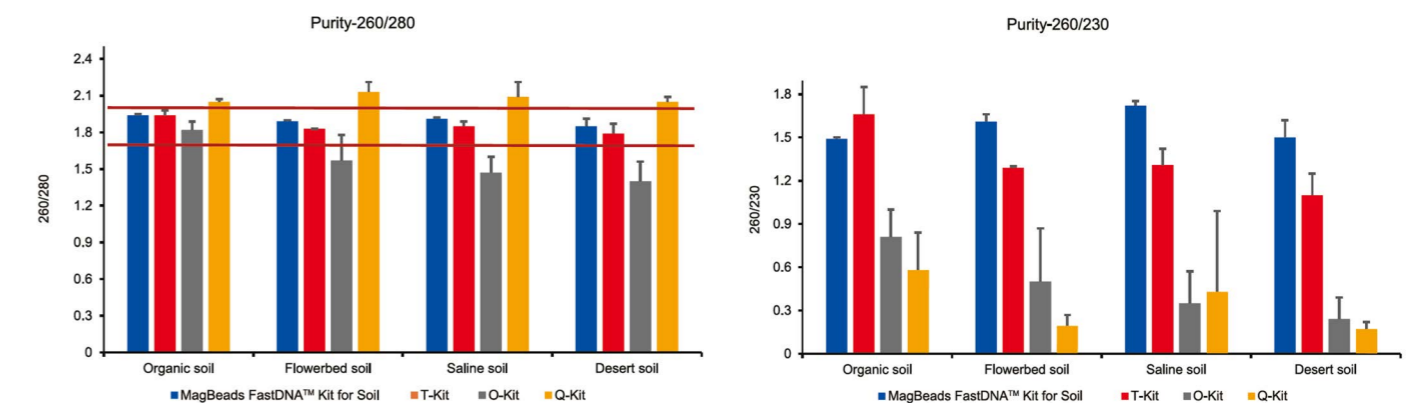
PERFORMANCE COMPARISON

1. DNA Yield comparison with competitors' kits – Higher yield



2. DNA purity comparison with competitors' kits – Higher purity

CRITERIA Employing UV spectrophotometry to analyze purity, purity is considered good with A260/A280 value of 1.7-2.0, and A260/A230 value of >1.0.



Magbeads FastDNA™ Kit for Soil

A260/A280 ratio is approximately 1.8, A260/A230 ratio is higher, purity obtained is higher than average level, consistent extraction results.

MAGBEADS FASTDNA™ KIT FOR SOIL

Magbeads FastDNA™ Kit for Soil is designed to provide high throughput isolation of genomic DNA from environmental samples. This kit uses magnetic beads with a high binding capacity to effectively extract DNA via manual or automated methods.



Test it with your Samples !
Contact us to request a 5 Prep Kit

Product	Cat. No.	Packaging
MagBeads FastDNA™ Kit for Soil	116561050	50 Preps
Magbeads FastDNA™ Kit for Soil Sample	116561005	5 Preps
MP Magnetic Rack 24	116570413	1 ea
MP Magnetic Rack 8	116570426	1 ea

The FastPrep System

A Complete Solution for Sample Preparation from Environmental Specimens



Powerful Thorough grinding and lysis of the most difficult samples in just a few seconds.

Flexible Easily interchangeable sample holders to process any sample size (2mL, 4.5mL, 15mL, 50mL tubes, 250mL flasks and 96 well plates) at cryogenic or room temperature.

Complete Solution Large number of ready-to-use Lysing Matrix compositions and FastPrep Kits for DNA, RNA and protein purification of any sample.

MP BIOMEDICALS

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