



# ENVIRONMENTAL MICROBIOLOGY

Discover the World of Metagenomics

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OPTIMIZE YOUR  
ENVIRONMENTAL RESEARCH  
WORKFLOW  
WITH  
**MP BIOMEDICALS**  
SAMPLE PREPARATION SOLUTION





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# FastPrep<sup>®</sup> Sample Preparation



# FastPrep® Instruments

## FastPrep-24™ Classic

**Catalogue Number: 116004500**



### Time-tested sample prep system

#### Effective

Unique optimized figure-8 motion ensuring a thorough grinding of the most resistant samples.

#### Proven

Backed by 8,500 publications.

#### Flexible

Easily interchangeable adapters to process any sample size (2 mL, 4.5 mL, 5 mL, 15 mL or 50 mL tubes) at cryogenic or room temperature.

## FastPrep-24™ 5G

**Catalogue Number: 116005500**



### The most advanced sample prep system available

#### Powerful

Highest speed available (10 m/s) offering the best performance for the lysis of the most resistant samples.

#### Intuitive

Interactive user-friendly interface and touchscreen with more than 70 pre-programmed protocols.

#### Flexible

Easily interchangeable adapters to process any sample size (2 mL, 4.5 mL, 5mL, 15 mL or 50 mL tubes) at cryogenic or room temperature.

### Typical settings for grinding various environmental samples with the FastPrep-24™ 5G instrument

Below is a table illustrating the typical speed and time settings for grinding 50 mg of various environmental samples with the **FastPrep-24™ 5G** instrument and Lysing Matrix E tubes.

Sample Type	FastPrep® Speed (m/s)	FastPrep® Time
Soil / Rock	5.5	2 x 30 sec
Sandy Sample	4.0	4 x 30 sec
Litter	5.5	30 sec
Brunisol Dark Gray Luvisol	5.5	40 sec
Soil from Grassland	5.5	2 x 30 sec
Rhizosphere	6.0	40 sec
Marine Sediment	5.5	2 x 40 sec
Asphalt-Permeated Soil	6.0	40 sec

## FastPrep-96™ Pro

 Catalogue Number: 116014500



**Real Time Monitoring:** LED indicators display run status

### Easy Operation

Touchscreen interface simplifies setup.

### Efficient Motion

True linear motion ensures consistent results.

### Flexible

Available adapters for any sample size, from 2 to 250 mL and 96-well plates.

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## FastPrep-96™

 Catalogue Number: 116010500



**High throughput sample grinding**

### High throughput

Process up to 192 samples simultaneously in 2 x 96 deep well plates.

### Exceptional versatility

Easily interchangeable adapters available for 2 x 96 deep well plates, 96 x 2 mL tubes, 48 x 4.5 mL tubes, 20 x 15 mL tubes, 8 x 50 mL tubes and 2 x 250 mL bottles.

### True linear motion

Eliminates the need to reorient plates mid-cycle.

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## Super FastPrep-2™

 Catalogue Number: 116012500



**Portable field testing**

### Thorough grinding

Omnidirectional motion and unique, patent-pending balanced crankshaft-slider mechanism for aggressive bead beating lysis and amazing performance.

### Time saving

Complete sample lysis of even the most difficult samples in 5 to 15 seconds, and processing designed for two 2 mL Lysing Matrix tubes.

### Portable

Handheld system for lab and field use, with cordless battery power supply.

# FastPrep® Adapters

## FastPrep-24™ 5G/Classic



Description	Size	Catalogue No.
QuickPrep (Classic)	24 x 2 mL	116002512
QuickPrep (5G)	24 x 2 mL	116005512
HiPrep	48 x 2 mL	116002527
TallPrep	24 x 4.5 mL	116002540
TeenPrep	12 x 15 mL	116002526
BigPrep	2 x 50 mL	116002525

## FastPrep-24™ 5G/Classic



Description	Size	Catalogue No.
Metal QuickPrep	24 x 2 mL	116002545
Metal TeenPrep	12 x 15 mL	116002546
Metal BigPrep	2 x 50 mL	116002547
Metal MidiPrep	18 x 5 mL	116002544

## FastPrep-24™ 5G/Classic



Description	Size	Catalogue No.
CoolPrep	24 x 2 mL	116002528
CoolTeenPrep	6 x 15 mL	116002530
CoolBigPrep	2 x 50 mL	116002531

## FastPrep-96™



Description	Size	Catalogue No.
Dual Plates	2 x 96	119696168
QuickFlex	96 x 2 mL	116010570
TallFlex	48 x 4.5 mL	116010580
TeenFlex	20 x 15 mL	116010560
BigFlex	8 x 50 mL	116010550
LargeFlex	2 x 250 mL	116010590
ConeFlex	up to 40g	116010595
Metal Dual Plate Holder (also applicable for FastPrep-96™ Pro)	2 x 96	119696169
Metal QuickFlex™ (also applicable for FastPrep-96™ Pro)	2 x 96	116010575

# FastPrep® Comparison Table



## FastPrep-24™ Classic

Bench-Top Bead Beating Lysis System



## FastPrep-24™ 5G

Advanced Bench-Top Bead Beating Lysis System

Description	Bench-Top Bead Beating Lysis System	Advanced Bench-Top Bead Beating Lysis System
Sample Capacity	Up to 48	Up to 48
Adapters	Interchangeable	Interchangeable
Tube Compatibility	2ml, 4.5ml, 5ml, 15ml, 50ml	2ml, 4.5ml, 5ml, 15ml, 50ml
Cryogenic Lysis	Yes	Yes
Interface	LCD/membrane keyboard	Touch Screen
Pre-Defined Protocols	No	72
User Defined Protocols	5	12
Min Speed	4.0 m/s	4.0 m/s
Max Speed	6.5 m/s	10.0 m/s
Acceleration	<2 sec to max	<2 sec to max
Deceleration	< 2 sec to stop	< 2 sec to stop
Motion	Figure 8 Tridimensional	Figure 8 Tridimensional
Typical Lysis Time (s)	40	20
Dimensions	465 mm (H) x 437 mm (W) x 332 mm (L)	490 mm (H) x 472 mm (W) x 385 mm (L)
Weight	17.5 kg (45 lb)	23.6 kg (52 lb)
Loudness	70 dB	<70 dB
Power requirements	90-250 V AC, 50/60 Hz, 500W	120 VAC/60 Hz, 500W; 230 VAC/50 Hz, 500 W
110/230V switch	Automatic	Automatic





### FastPrep-96™ Pro

High Throughput, Performance,  
Compact Bead-Beating Lysis System

Up to 192

Interchangeable

2ml, 4.5ml, 15ml, 50ml, 96 plate, 250 ml

Yes

Touch Screen / industrial buttons

No

1

800 RPM

1800 RPM

<2 sec to max

<2 sec to stop

Vertical

40

540 mm (H) x 400 mm (W) x 660 mm (L)

30 kg

< 70 dB

110V AC / 60Hz, 11A; 220  
V AC / 50Hz, 15A

Automatic



### FastPrep-96™

High Throughput, High-Performance  
Bead Beating Lysis System

Up to 96

Interchangeable

2ml, 4.5ml, 15ml, 50ml, 96 plate, 250 ml

Yes

VFD/ industrial buttons

No

1

800 RPM

1800 RPM

<2 sec to max

< 2 sec to stop

Vertical Linear

40

700mm (H) x 440mm (W) x 660mm (L)

49 kg (108 lb)

<65 dB

110VAC/60 Hz, 5.2A; 220  
VAC/50 Hz, 2.6A

Automatic



### Super FastPrep-2™

High-Performance, Handheld  
Field Lysis system

2

No

2ml

No

manual-button

No

No

500 CPM

4,400 CPM

Ø 500 G

NA

Reciprocating

5

13"L x 3.4"W x 4.6"H

2.2 kg

<100 dB

90-240 V for battery charger,  
cordless operation

Battery loader spec

# FastPrep® Lysing Matrix

## Tailored to environmental samples

The use of MPBio's Lysing Matrix E and Y in combination with FastPrep® instruments ensures complete and quantitative lysis, resulting in higher yields of DNA. Lysing Matrix E and Y tubes are designed to lyse all microorganisms present in environmental samples, including difficult sources such as eubacterial spores and endospores, gram positive bacteria and yeast, and plant and animal tissues.

Our complete portfolio of Lysing Matrix tubes can be found on our website at [www.mpbio.com](http://www.mpbio.com).

Sample Type	Lysing Matrix																	
Microorganisms	A	B	C	D	E	F	G	H	I	J	K	M	S	SS	Y	YB	Z	
Bacteria (gram + and -)	●	●				●				●								
Yeast, Mold	●		●			●	●				●				●			
Bacterial & Fungal spore	●	●				●	●		●	●	●			●				
Algae	●		●				●								●			
Virus	●	●																
Environmental Samples	A	B	C	D	E	F	G	H	I	J	K	M	S	SS	Y	YB	Z	
Soil, Marine sediment, Rhizosphere, Manure, Compost, Sludge, Feces, Wastewater					●		●	●	●							●		
Plant Tissues	A	B	C	D	E	F	G	H	I	J	K	M	S	SS	Y	YB	Z	
Leaf	●			●		●	●										●	
Seed	●					●	●	●	●			●	●	●				
Root	●					●	●						●					
Needle	●					●	●					●	●					
Wood	●					●	●	●	●									
Stem, Flower	●			●		●	●											

## Lysing Matrix E Tubes

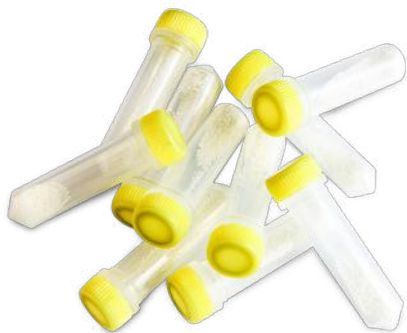
■ 1.4 mm ceramic beads, 0.1 mm silica beads and 4 mm glass beads



Description	Catalogue No.
50 x 2 mL	116914050
100 x 2 mL	116914100
500 x 2 mL	116914500
25 x 4.5 mL	116974025
25 x 15 mL	116934025
10 x 50 mL	116954010
1x 96 well plate	116984001
1x 96 barcoded well plate	116984001B

## Lysing Matrix Y Tubes

■ 0.5 mm Yttria-stabilized Zirconium Oxide Spheres



Description	Catalogue No.
50 x 2 mL	116960050
100 x 2 mL	116960100
500 x 2 mL	116960500
25 x 4.5 mL	116977025
25 x 15 mL	116975025
10 x 50 mL	116976010
1 x 96 well plate	116960001

## Lysing Matrix YB Tubes

■ 0.5 mm diameter Yttria-stabilized zirconium oxide beads,  
0.1 mm silica spheres



Description	Catalogue No.
50 x 2 mL	116547050
100 x 2 mL	116547100
500 x 2 mL	116547500



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# MagBeads Extraction Kit





# MagBeads FastDNA™ Kit for Soil



## High quality DNA

High concentrations of pure DNA that is free from inhibitors

## Simple protocol

Easy to use, high throughput, and designed for both manual and automated magnetic processors including MPure-32™ and MPure-96™

## Wide applicability

Wide range of applications, suitable for all types of soil samples

## Environmentally friendly

No phenol/ chloroform or other toxic chemicals

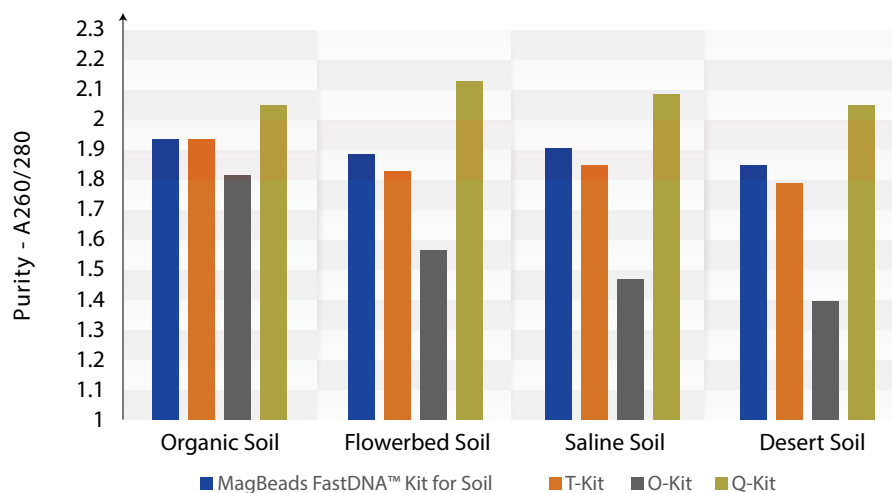
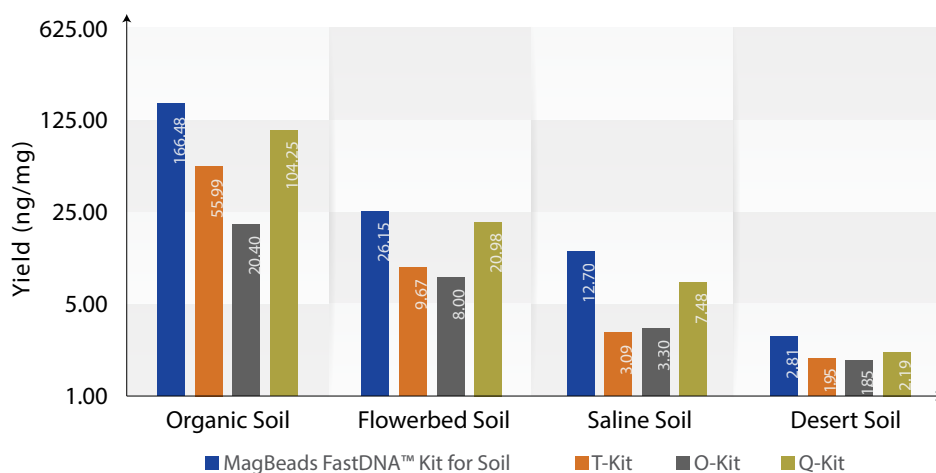
## Automation Instruments

### Automated Magnetic Processor

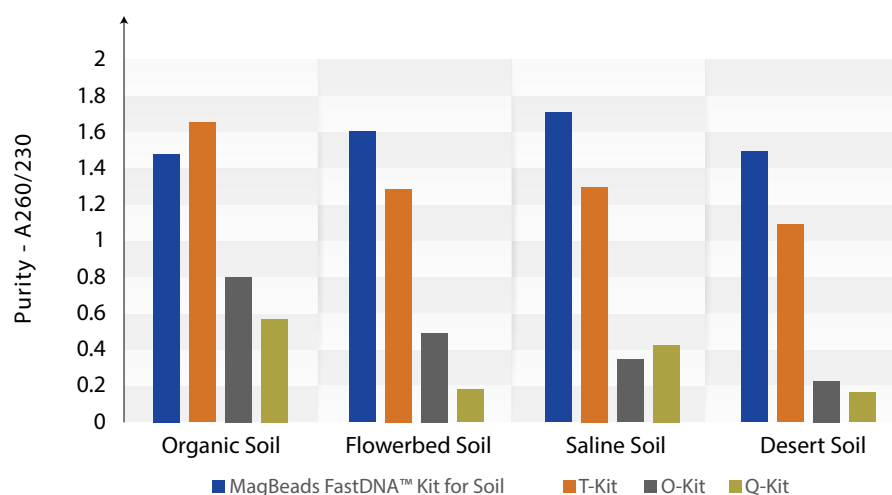


## Product Comparison

MagBeads FastDNA™ Kit for Soil has the highest yield across different types of samples.

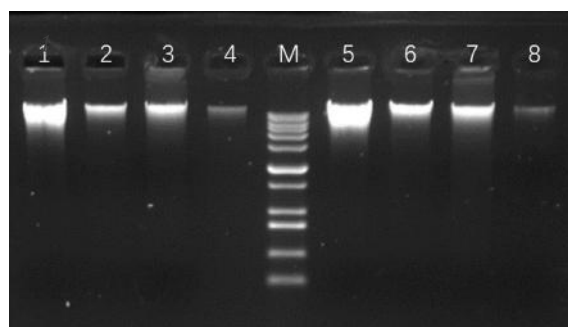


**MagBeads FastDNA™ Kit for Soil** has a consistent A260/280 reading in the desired range of 1.8 – 2.0. **Q Kit** has a A260/280 ratio that is higher than 2.0, indicating the presence of RNA contamination. **O Kit** has an inconsistency in results and A260/280 ratios falls below 1.8, indicating protein and/or other contaminations.



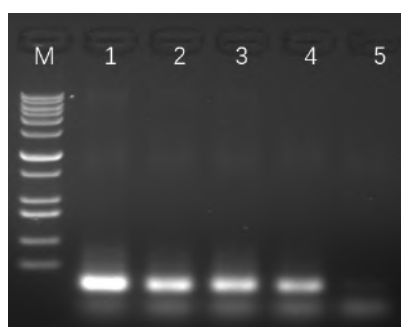
**MagBeads FastDNA™ Kit for Soil** has a consistent high level of purity based on A260/230 ratios. **Q and O Kit's** A260/230 ratios are inconsistent and lower than 1. Extracted DNA may contain organic compounds or humic acids.

## Product Performance



Lane M: 1kb plus DNA ladder  
 Lane 1 and 5: Organic Soil  
 Lane 2 and 6: Flowerbed Soil  
 Lane 3 and 7: Saline Soil  
 Lane 4 and 8: Desert Soil

Genomic DNA was extracted from different soil samples using MagBeads FastDNA Kit for Soil. Agarose gel electrophoresis image showed a comparable profile between manual and automation extraction methods.



Lane 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

PCR amplification products were successfully obtained from the DNA extracted from various types of soil samples using MagBeads FastDNA Kit for Soil; this demonstrates that all extracted DNA samples were free of PCR inhibitor.

## Order Information

Product Name	Size	Catalogue No.
MP Magnetic Rack 8	1 each	116570426
MP Magnetic Rack 24	1 each	116570413
MagBeads FastDNA® Kit for Soil	50 preps	116561050
MagBeads FastDNA® Kit for Soil (Ready-to-Use for MPure-32)	96 preps	117033100
MagBeads FastDNA® Kit for Soil (Ready-to-Use for MPure-96)	96 preps	117034100
MagBeads FastDNA® Kit for Soil (Ready-to-Use for MagFlex-96)	96 preps	119607096

# MagBeads FastDNA™ Kit for Feces



## High quality DNA

High yield of pure DNA that is free from inhibitors

## Simple protocol

Easy to use, high throughput and compatible with many automated instruments especially on MPure-32™ and MPure-96™

## Wide applicability

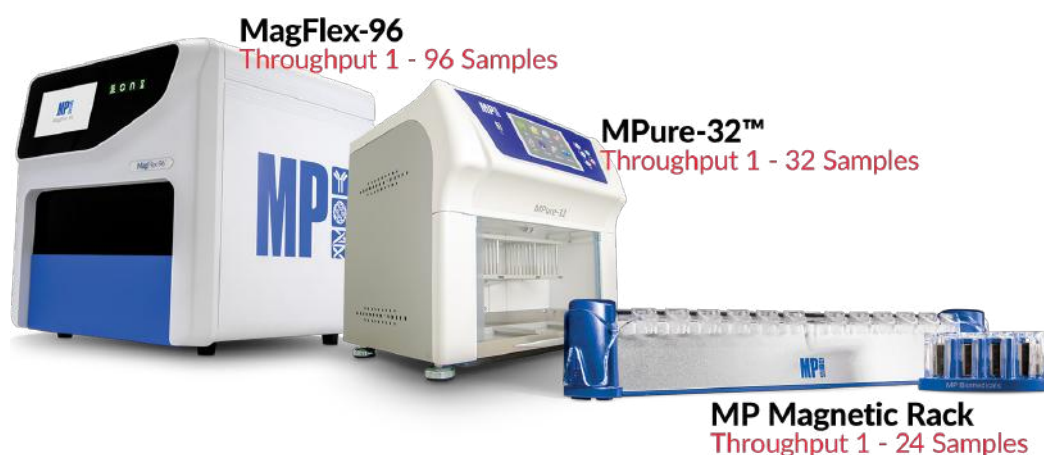
Wide range of applications, suitable for all types of feces, intestinal content

## Environmentally friendly

No phenol/ chloroform or other toxic chemicals

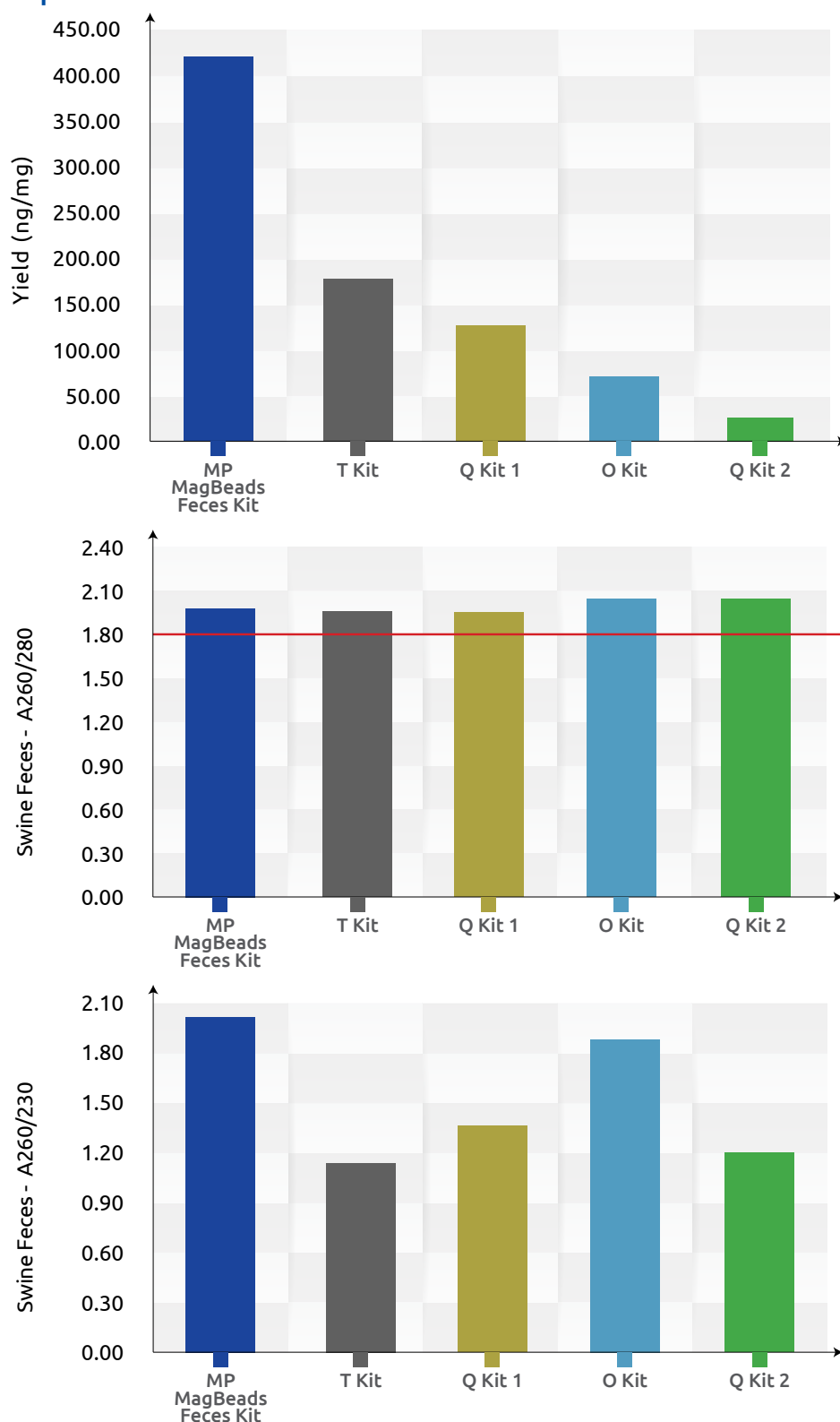
## Automation Instruments

### Automated Magnetic Processor





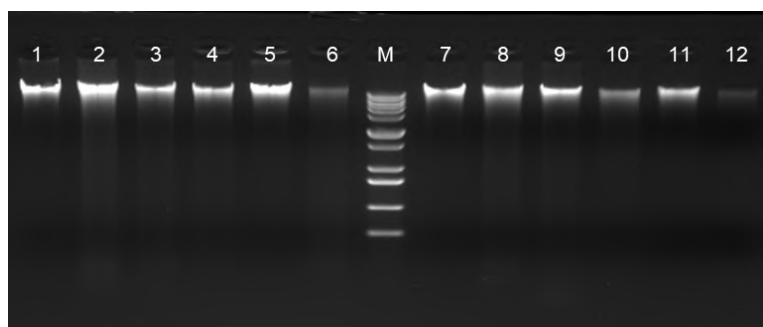
## Product Comparison



Figures demonstrating DNA yields and absorbance ratios result extracted from feces sample using MagBeads FastDNA kit for Feces and other competitor kits following manufacturer's recommended protocols.

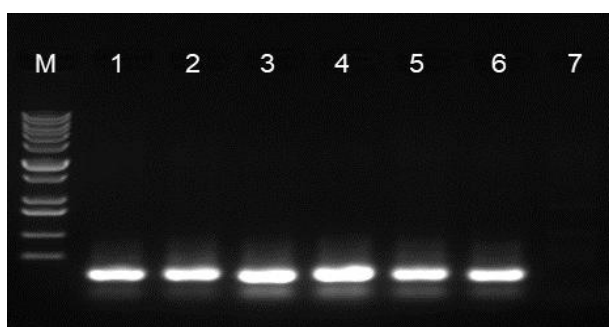
\*Other tested sample: Chicken, bovine, human, dog, mouse, elephant, goat (not shown)

## Performance



M: 1 kb plus DNA ladder  
 Lane 1 and 7: 30 mg swine feces  
 Lane 2 and 8: 15 mg mouse feces  
 Lane 3 and 9: 30 mg human feces  
 Lane 4 and 10: 150 mg chicken feces  
 Lane 5 and 11: 150 mg bovine feces  
 Lane 6 and 12: 150 mg elephant feces

Genomic DNA was extracted from different feces samples using MagBeads FastDNA Kit for Feces. Agarose gel electrophoresis image showed a comparable profile between manual and automation extraction methods.



M: 1kb plus DNA ladder  
 Lane 1: swine feces  
 Lane 2: mouse feces  
 Lane 3: human feces  
 Lane 4: chicken feces  
 Lane 5: bovine feces  
 Lane 6: elephant feces  
 Lane 7: negative control

PCR amplification products were successfully obtained from the DNA extracted from various types of feces samples using MagBeads FastDNA Kit for Feces; this result demonstrated that all extracted DNA samples were free of PCR inhibitor.

## Order Information

Product Name	Size	Catalogue No.
MP Magnetic Rack 8	1 each	116570426
MP Magnetic Rack 24	1 each	116570413
MagBeads FastDNA Kit for Feces	50 preps	116570400
MagBeads FastDNA Kit for Feces (Ready-to-Use for MPure-32)	96 preps	117033200
MagBeads FastDNA Kit for Feces (Ready-to-Use for MPure-96)	96 preps	117034200
MagBeads FastDNA Kit for Feces (Ready-to-Use for MagFlex-96)	96 preps	119608096

# MagBeads FastRNA™ Kit for Feces

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**Advanced magnetic bead-based technology with proprietary inhibitor removal**  
for scalable, automatable RNA purification, eliminating fibers, undigested particles, bilirubin, polysaccharides, and lipids from diverse fecal samples

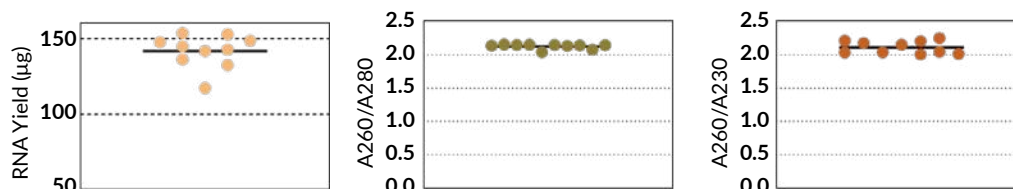
**State-of-the-art bead-beating and lysis chemistry with selective RNA binding**  
ensuring efficient homogenization and complete DNA removal via FastDNase I treatment for high-purity RNA compatible with RT-qPCR

**Fast and streamlined protocol**  
extracting up to 250 µg of total RNA from 200 mg of fecal samples with minimal handling steps

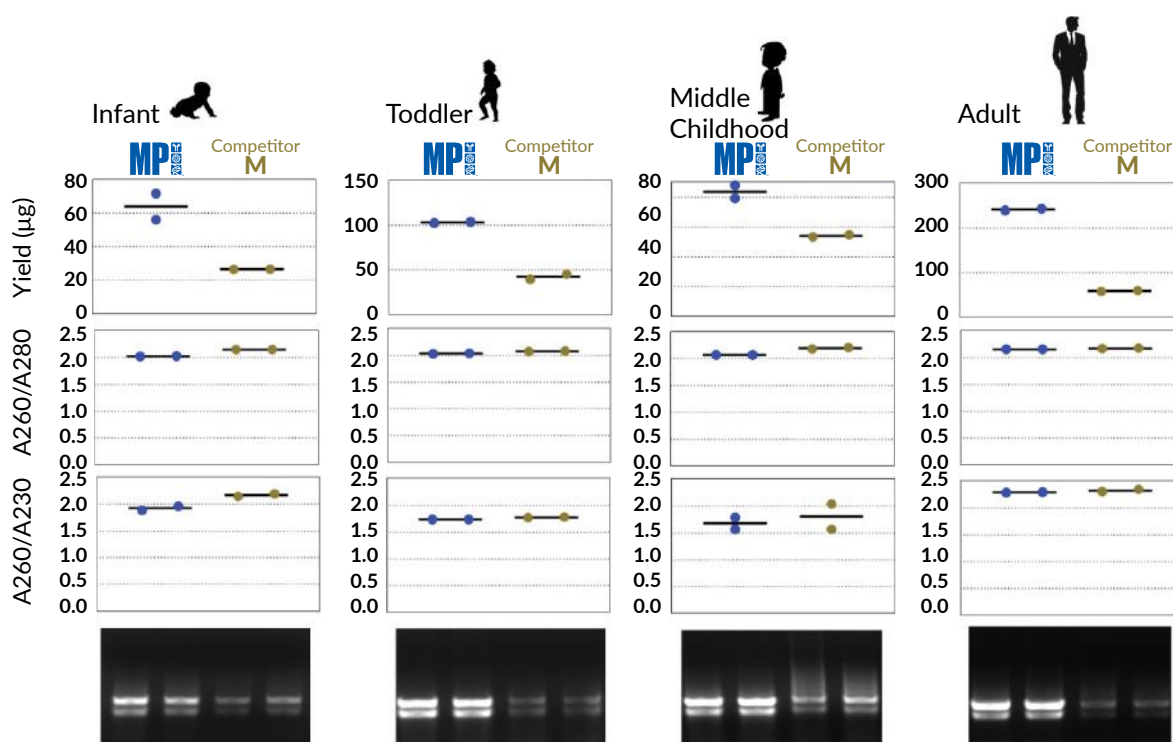
**Versatile ready-to-use formats**  
available for MPure-32™ (Cat. No. 117040300) and MPure-96™ (Cat. No. 117040400) aNAP Systems

The **MagBeads FastRNA Kit for Feces** is a scalable, automatable magnetic bead-based technology for efficient RNA isolation from fecal samples, with ready-to-use versions (Cat. No. 117040300 & 117040400). It addresses challenges posed by dietary components like fibers, undigested particles, and lipids— which hinder RNA extraction— using advanced bead-beating technology, compatible lysis chemistry, and proprietary inhibitor removal. The kit features selective RNA binding and FastDNase I treatment to fully eliminate DNA, ensuring high RNA yield and purity. This streamlined process is compatible with RT-qPCR without additional purification steps.

## Performance

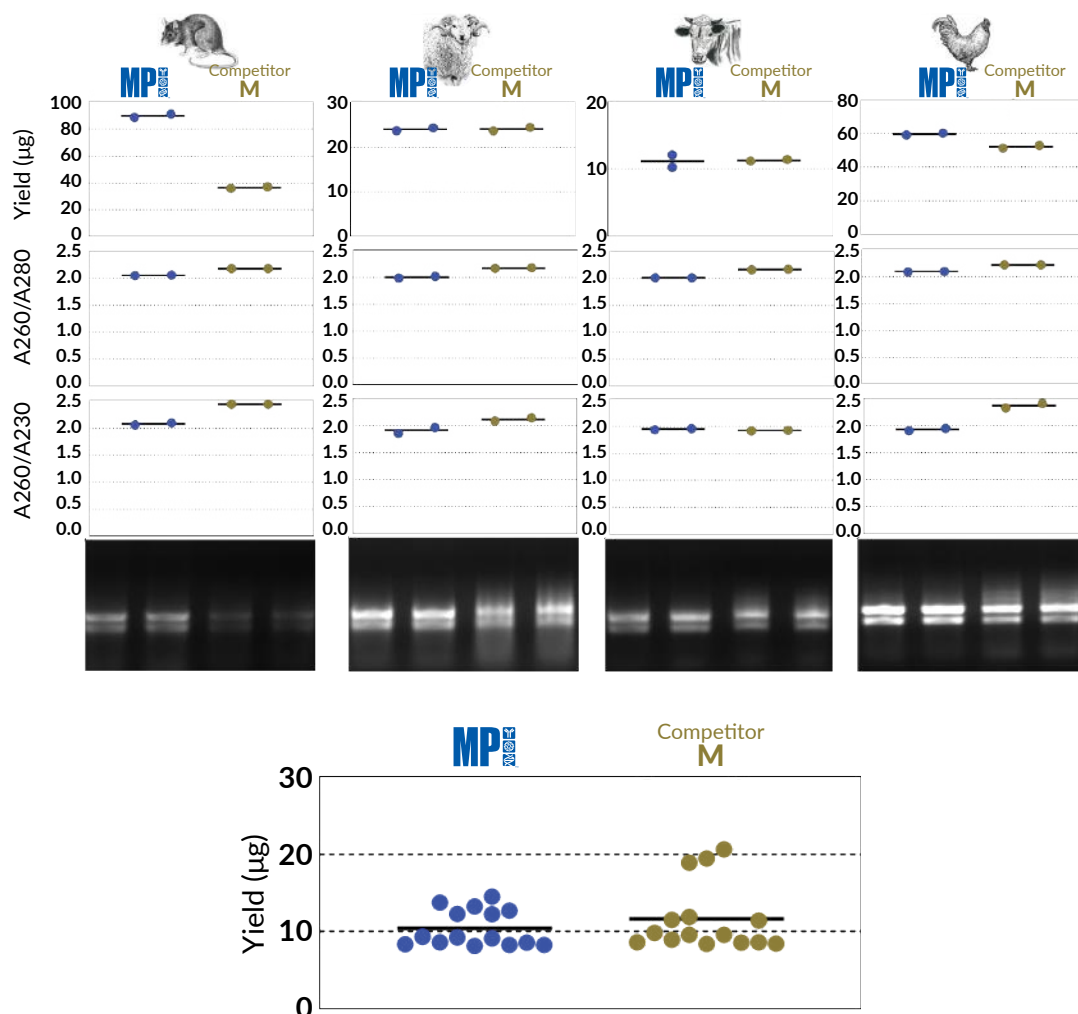


**Figure 1. RNA Yield and Purity from Fecal Samples Extracted with MagBeads FastRNA Kit for Feces.** RNA yield and purity (A260/A280 and A260/A230 ratios) obtained from three human fecal sources. Each dot represents an individual sample processed with the MagBeads FastRNA Kit for Feces.



**Figure 2. Performance evaluation of RNA extracted from human fecal samples using the MagBeads FastRNA Kit for Feces (MP) compared to Competitor M.** RNA was independently extracted from human fecal samples (two extractions per sample, each dot on the plot represents one extraction). The RNA yield, purity (A260/A230 ratio) and integrity were assessed using spectrophotometry and agarose gel electrophoresis.





**Figure 3: Performance evaluation of RNA extracted from animal fecal samples using the MagBeads FastRNA Kit for Feces (MP) compared to Competitor M.** RNA was independently extracted from animal fecal samples (two extractions per sample, each dot on the plot represents one extraction). The RNA yield, purity (A260/A230 ratio) and integrity were assessed using spectrophotometry and agarose gel electrophoresis. In addition, the extracted RNA was also assessed for its amplifiability using qPCR and the Ct values given by MP are earlier than Competitor M. The horizontal bars indicate the median value.

## Order Information

Product Name	Size	Catalogue No.
MagBeads FastRNA Kit for Feces	50 Preps	116588050
MagBeads FastRNA Kit for Feces (Ready-to-Use for MPure-32)	96 Preps	117040300
MagBeads FastRNA Kit for Feces (Ready-to-Use for MPure-96)	96 Preps	117040400



# SPINeasy<sup>®</sup> Extraction Kit

# SPINeasy® DNA Pro Kit for Soil

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## Effective isolation

of high quality genomic DNA from high biomass and low biomass sample

## Unbiased

alpha diversity results

## Higher purity

and shorter processing time

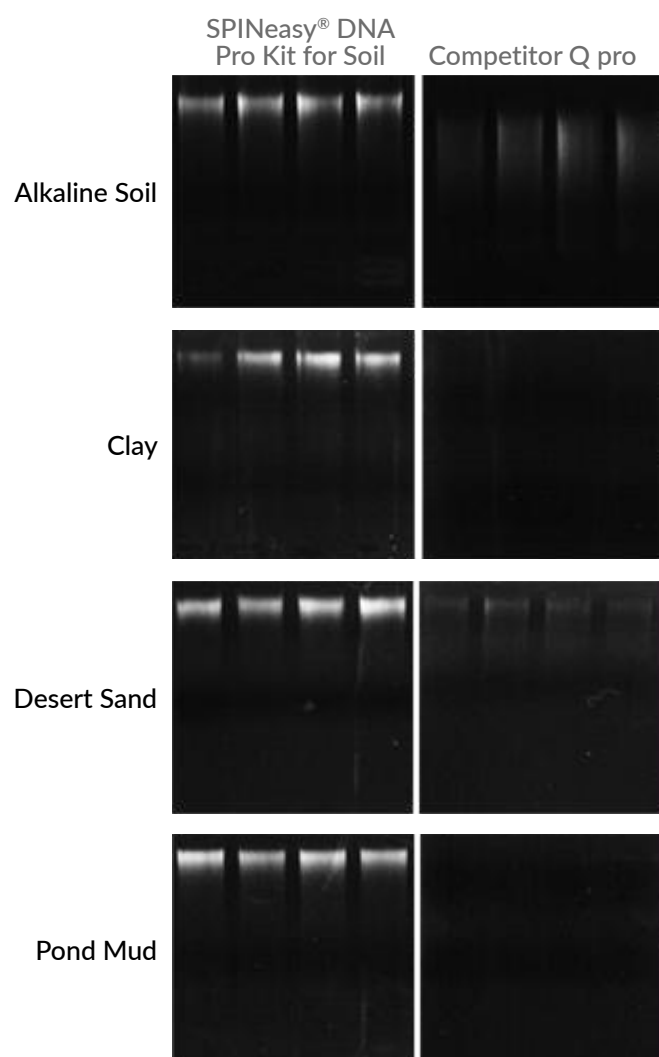
## Vacuum manifold

compatible

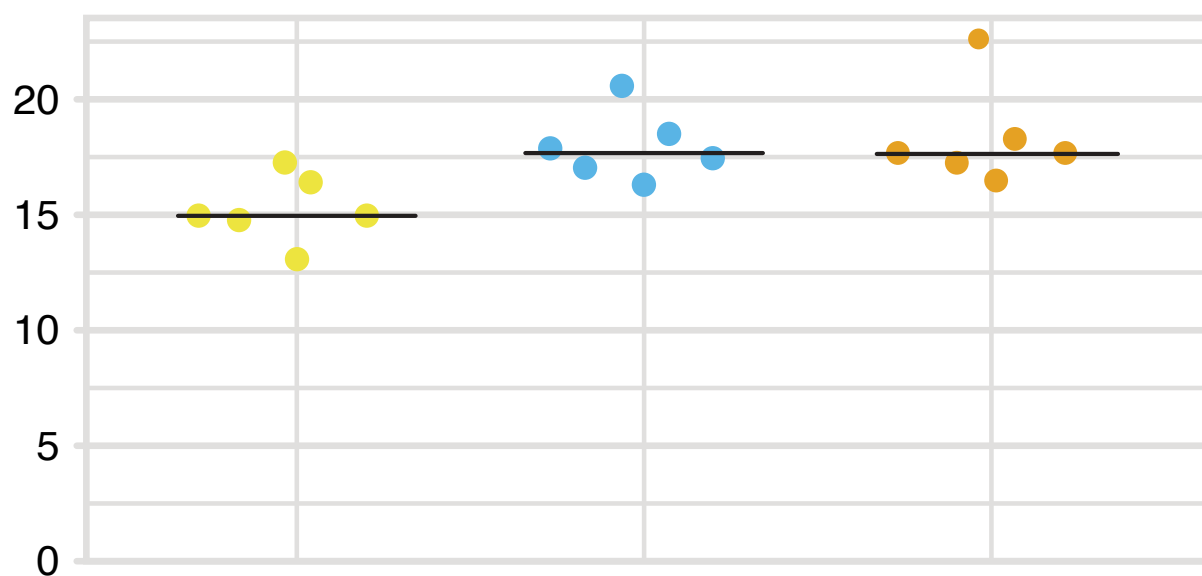
Soil samples are complex environments characterized by the presence of inhibitory compounds, such as humic acid, heavy metals, and other aromatic components which may prove to be challenging for downstream analyses. The **SPINeasy® DNA Pro Kit for Soil** has been carefully designed for the isolation of pure microbiome genomic DNA from challenging soil types including those with low biomass or those highly contaminated.

The **SPINeasy® DNA Pro Kit for Soil** effectively lyses various microbiome population, including bacteria, fungi, viruses, and protists. The kit provides similar yields to that of our highly cited FastDNA™ SPIN Kit, but with improved purity and reduced processing time. Isolated DNA products showed no inhibition in PCR and were immediately ready to be used in downstream applications, including long fragment PCR, qPCR, and next generation sequencing (16S and whole genome) without the need of further inhibitor removal step.

## Product Performance



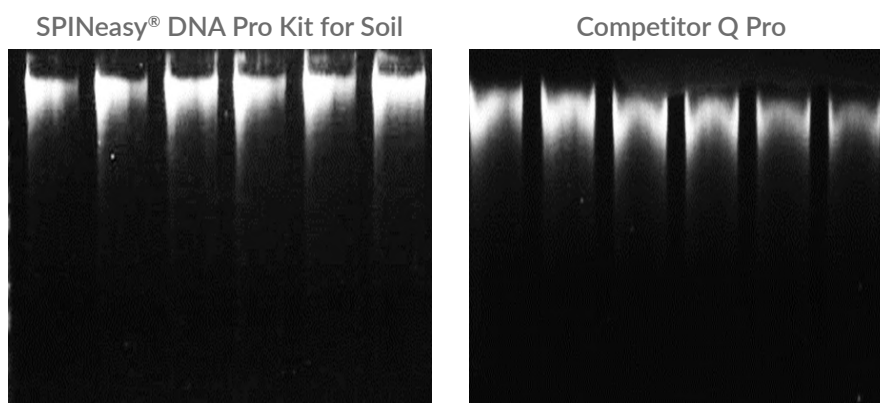
DNA extraction was performed on 250 mg of low biomass soil samples using **SPINeasy® DNA Pro Kit for Soil** and competitor Q Pro kit following manufacturer instruction.



High biomass soil sample was processed using **SPINeasy® DNA Pro Kit** and other extraction kits. The extraction performance was evaluated using a spectrophotometer and summarized with a dot plot with each dot representing a single extraction, or agarose gel to assess the DNA integrity.



## Integrity



The SPINeasy® DNA Pro Kit for Soil gave superior yield, purity and integrity as compared to other extraction kits.

## Order Information

Product Name	Size	Catalogue No.
SPINeasy® DNA Pro Kit for Soil	50 preps	116546050
	5 preps	116546000

# SPINeasy® RNA Kit for Soil



## Specially designed spin columns

to achieve consistent RNA yields of up to 25 µg from soil samples

## Simple and streamlined protocol

to minimize hands-on time

## Suitable

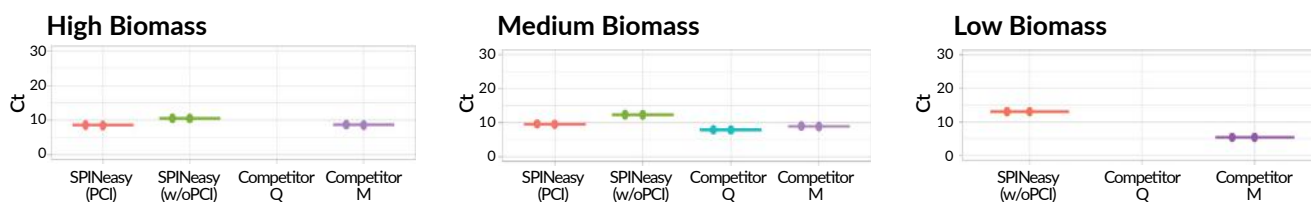
for diverse soil types like compost, clay, sand, and low-biomass samples

## Efficient inhibitor removal

to ensure high-quality RNA free from contaminants

The **SPINeasy® RNA Kit for Soil** is a high-performance RNA extraction kit utilizing silica-membrane spin-column technology. This kit allows for the efficient isolation of RNA from various soil types, including those with high humic acid content, heavy contaminants, compost, gardening soil, and low-biomass soils. The extraction process can be completed in under an hour with minimal RNA degradation, and the use of hazardous chemicals like phenol or chloroform is unnecessary. Our specially formulated inhibitor removal technology effectively handles soil samples containing humic acids, heavy metals, and other aromatic compounds, ensuring accurate PCR results. RNA extracted with this kit demonstrates high integrity and purity, suitable for downstream applications such as reverse transcription, real-time PCR, and sequencing.

## Product Performance



Comparison of Ct values from RT-qPCR using RNA extracted with the SPINeasy® RNA Kit for Soil versus competitors Q and M. Testing was conducted on high-biomass (50 ng), medium-biomass (50 ng), and low-biomass (30 ng) soil samples, with amplification performed using SYBR Green technology.

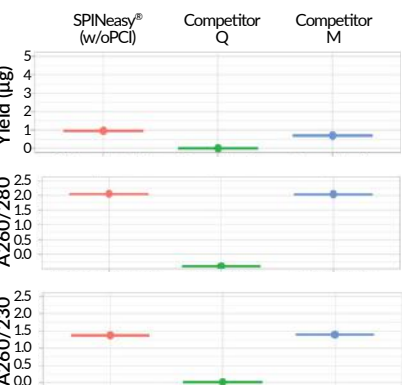
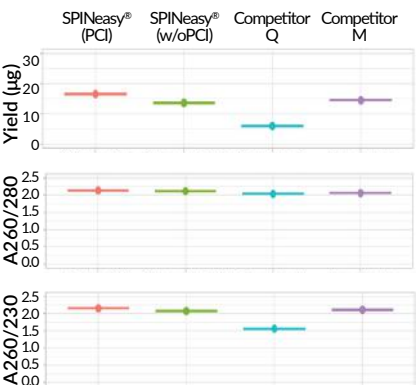
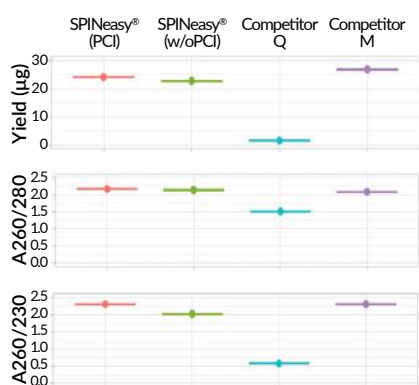
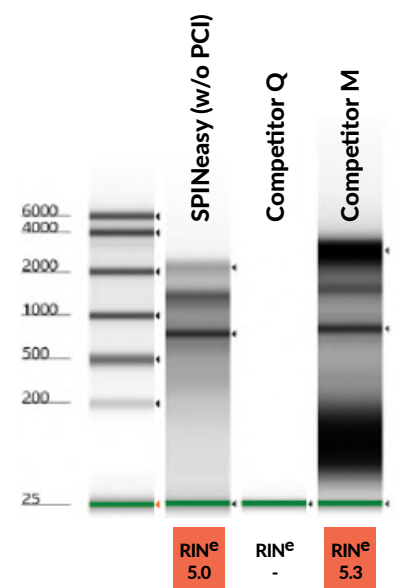
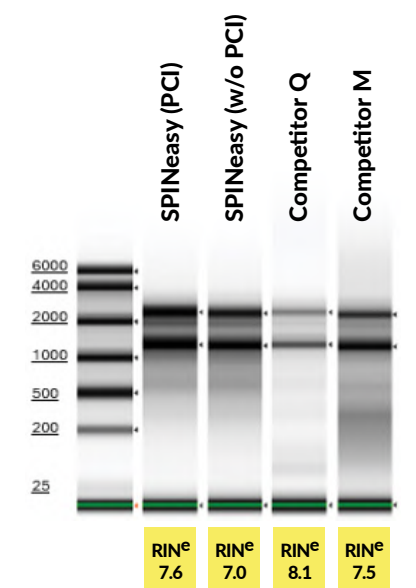
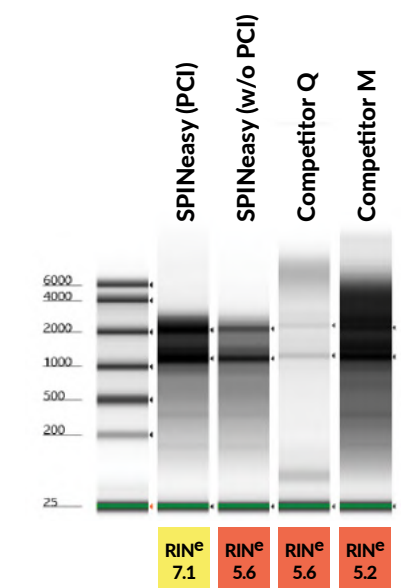
Organic Compost Soil from Location A (High Biomass Soil)



Organic Compost Soil from Location B (Medium Biomass Soil)



Garden Soil (Low Biomass Soil)



RNA was extracted from High (200 mg), Medium (250 mg), and Low (500 mg) Biomass Soils using the SPINeasys<sup>®</sup> RNA Kit for Soil and competitors Q and M. Yield was measured with the QuantiFluor<sup>®</sup> RNA System (Promega). Purity (A260/280 and A260/230 ratios) was checked with a spectrophotometer. RNA quality (virtual gel image and RIN, shown in yellow or red) was assessed using the Agilent TapeStation 4150.

## Order Information

Product Name	Size	Catalogue No.
SPINeasys <sup>®</sup> RNA Kit for Soil	50 preps	116585050
	5 preps	116585000

# SPINeasy® DNA/RNA Kit for Soil



## Proprietary inhibitor removal technology

to eliminate humic acids, heavy metals, and aromatic compounds for pure DNA and RNA

## Selective binding innovation

to enable simultaneous isolation of genomic DNA and RNA from challenging soils

## Suitable

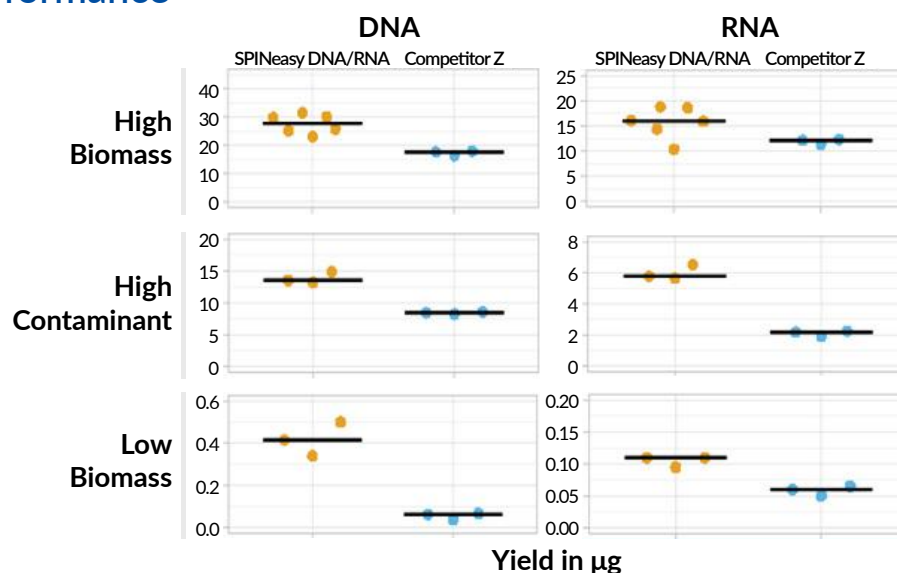
for diverse soil types, including low-biomass and highly contaminated samples

## Fast and efficient protocol

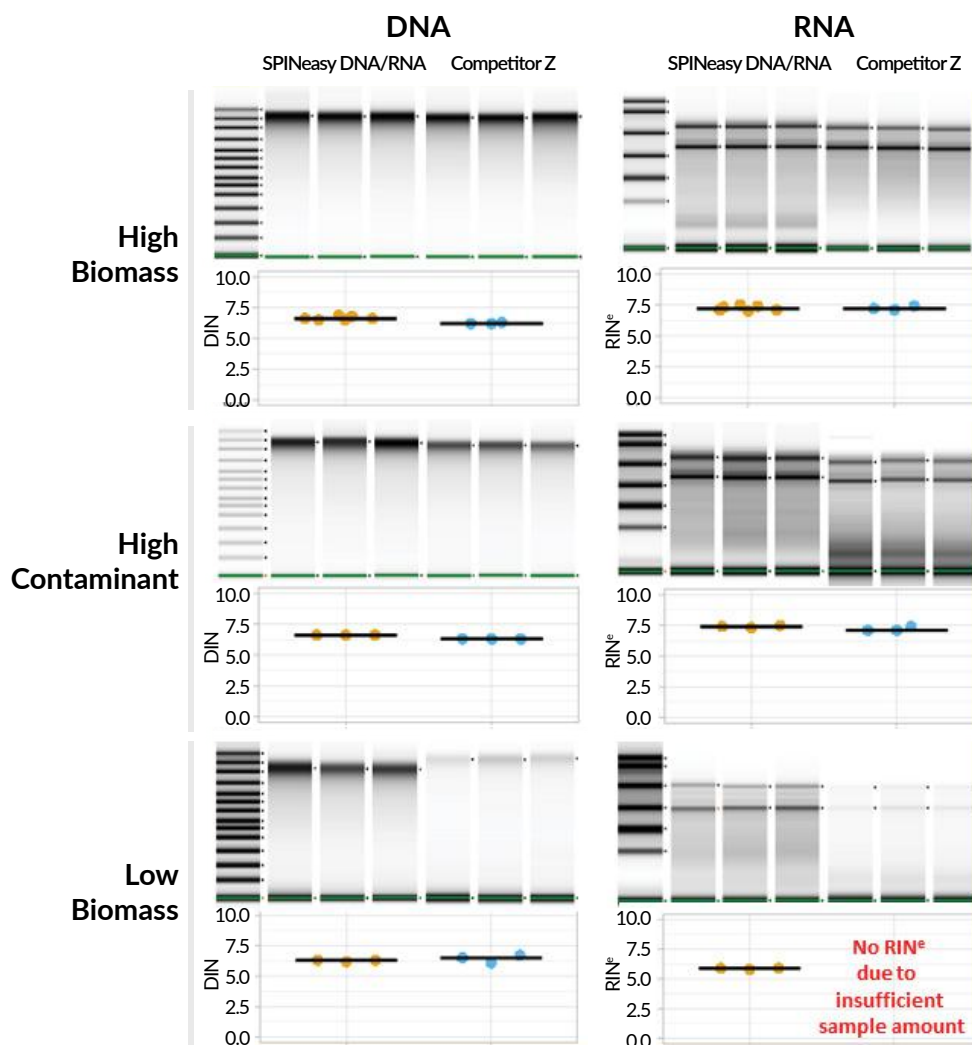
to complete extraction of up to 50µg DNA and 30µg RNA

Humic acids, heavy metals, and other aromatic components are among the most notorious PCR inhibitors found in the soil, leading to false negative or underestimated results. Non-optimized nucleic acid extraction protocol often co-purify inhibitors. The **SPINeasy® DNA/RNA Kit for Soil** integrates our proprietary inhibitor removal expertise and our new technology for selective binding of DNA and RNA. The **SPINeasy® DNA/RNA Kit for Soil** allows simultaneous isolation of pure microbiome genomic DNA and RNA from challenging soil types, including those with low biomass or those that are highly contaminated. The isolated nucleic acid products showed no contaminants and were immediately ready for use in downstream applications, including qPCR and RT-qPCR without the need of further inhibitor removal step.

## Product Performance

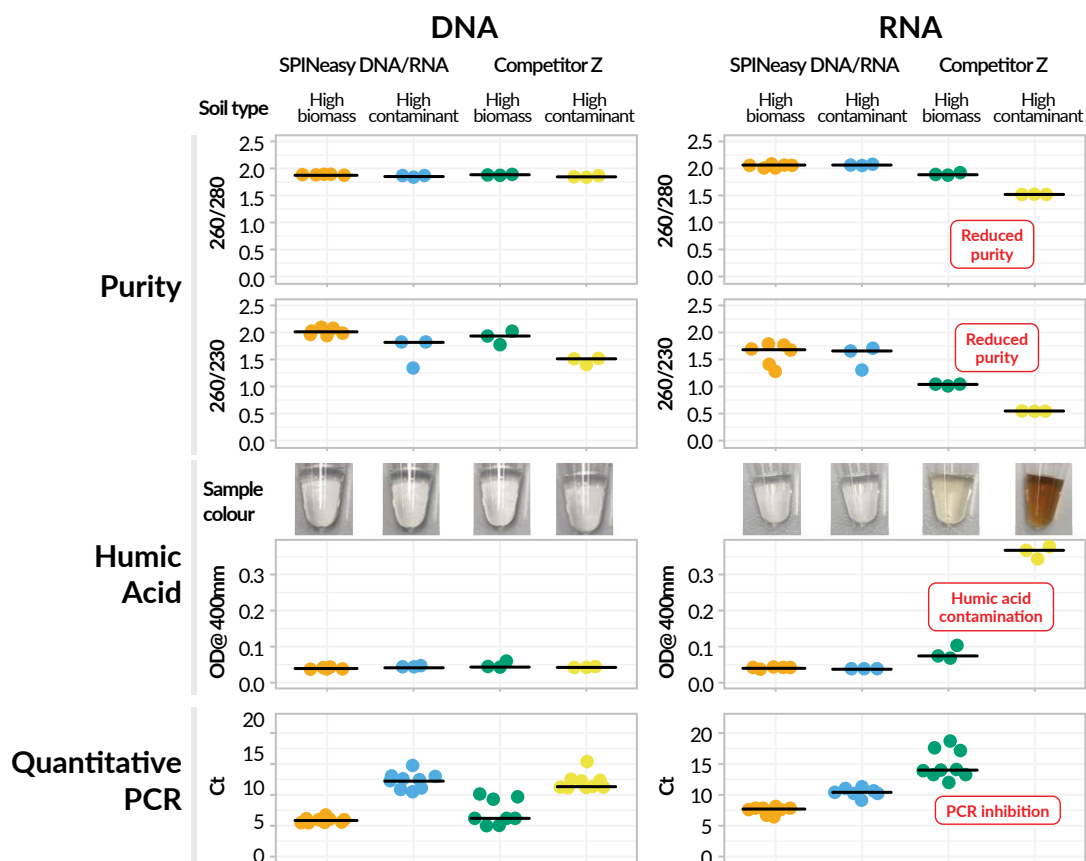


The SPINeasy® DNA/RNA Kit for Soil outperforms Competitor Z in nucleic acid yield. DNA and RNA were extracted from three soil types (250 mg each). Yields were measured by fluorometry, with each dot showing one extraction.



The SPINeasy® DNA/RNA Kit for Soil extracts high-quality DNA and RNA from tough soil types, including high-biomass, high-contaminant, and low-biomass samples. Virtual gels from Agilent 4150 TapeStation show DNA integrity (DIN) and RNA integrity (RIN) values. Each dot represents one sample.





**Top Panel:** Purity shown by A260/A280 and A260/A230 ratios.

**Middle Panel:** Images of DNA and RNA outputs; brownish color indicates humic acid, confirmed by spectrophotometer at 400 nm.

**Bottom Panel:** No inhibitors detected, proven by qPCR and RT-qPCR amplifying 1 µL undiluted sample with bacterial 16S primers.

## Order Information

Product Name	Size	Catalogue No.
SPINeasy® DNA/RNA Kit for Soil	50 preps	116554050
	5 preps	116554000

# SPINeasy® DNA Pro Kit for Feces



**Newly formulated buffers**  
to achieve better yield and purity of fecal DNA

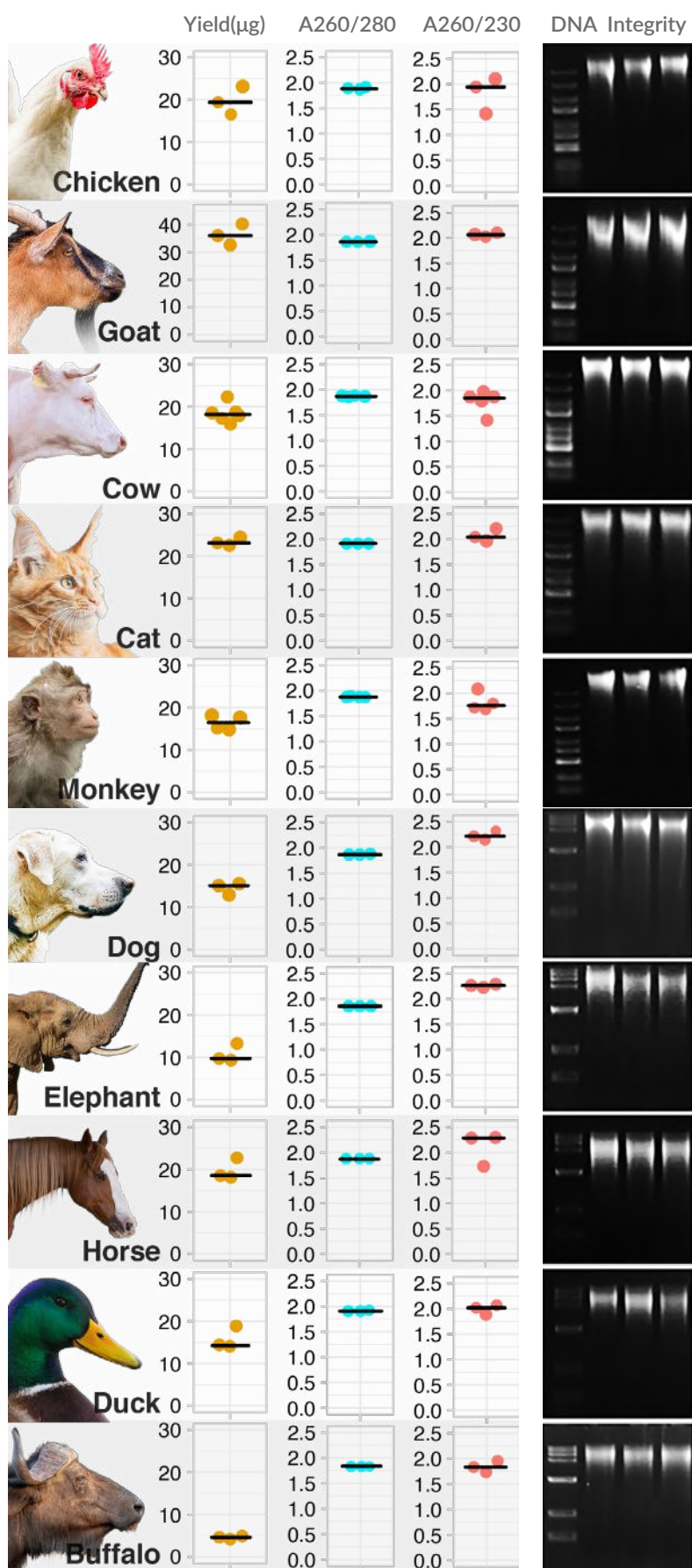
**Easy to handle**  
and minimize any risk of contamination

**Suitable**  
for various types of feces samples

**User friendly**  
suitable for any scale of experimental throughput

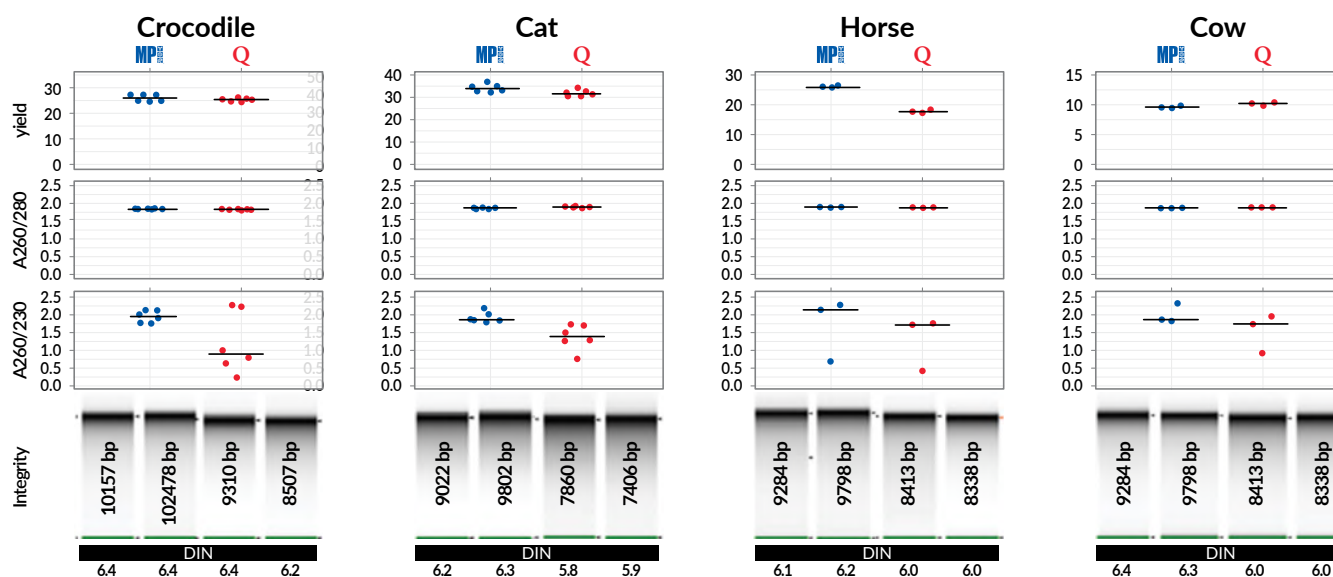
DNA extracted from fecal samples has just been made easier with our newly updated **SPINeasy® DNA Pro Kit for Feces**. Challenges that we may face from fecal samples are simply eliminated through the kit by bead beating with the new Lysing Matrix YB and lysis Buffer SF1. Subsequent treatment with Buffer SF2 effectively removes humic acid and other contaminants. The chemistry included in Buffer SF3 enables the specific binding of DNA without co-purification of RNA, eliminating the need for RNase A treatment. DNA obtained from fecal samples showed no inhibition in PCR and was immediately ready-to-be used for downstream applications, including long fragment PCR, qPCR, and next-generation sequencing (16S and whole genome) without the need for a further inhibitor removal step.

## Extraction Results for Feces



The SPINeasy® DNA Pro Kit for Feces provides high-quality DNA from various fecal samples.

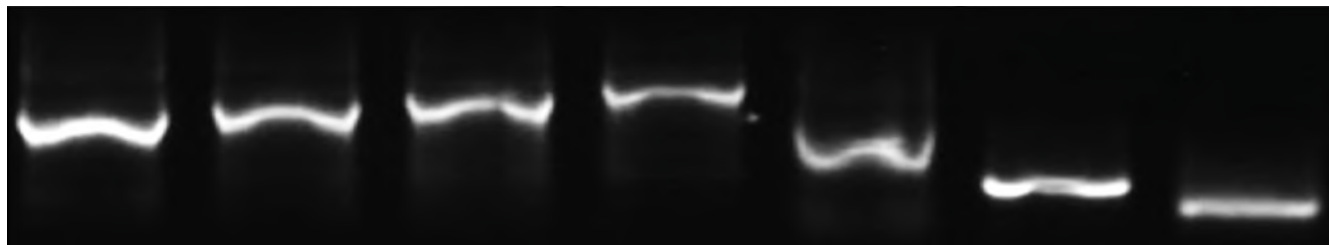
## Comparison versus competitor Q



The DNA extracted using SPINeasy® DNA Pro Kit for Feces or competitor Q kits were compared in terms of yield, purity (A260/280 and A260/230 ratios), and integrity. Representative virtual gels obtained from Agilent 4150 TapeStation analyses showed the DNA integrity value (DIN) and the size of the genomic DNA band in bp.

## Amplifiability

### End Point PCR



The absence of inhibitor in fecal samples obtained using SPINeasy® DNA Pro Kit for Feces was assessed using inhibitor-sensitive PCR and undiluted sample as well as quantitative PCR.

## Order Information

Product Name	Size	Catalogue No.
SPINeasy® DNA Pro Kit for Feces	50 preps	116547050
	5 preps	116547000

# SPINeasy® DNA Kit for Water



Significantly improve the purity  
of extracted DNA

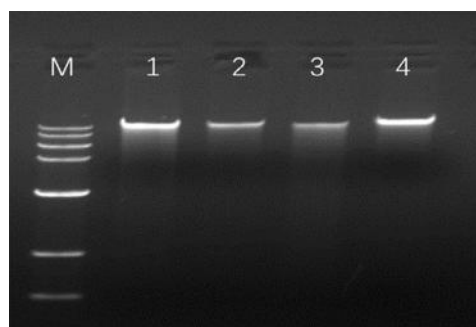
Rapid lysis  
of microorganisms yields high concentrations of pure DNA

Suitable  
for various types of water samples

Safe extraction process  
does not require phenol, chloroform or other toxic reagents

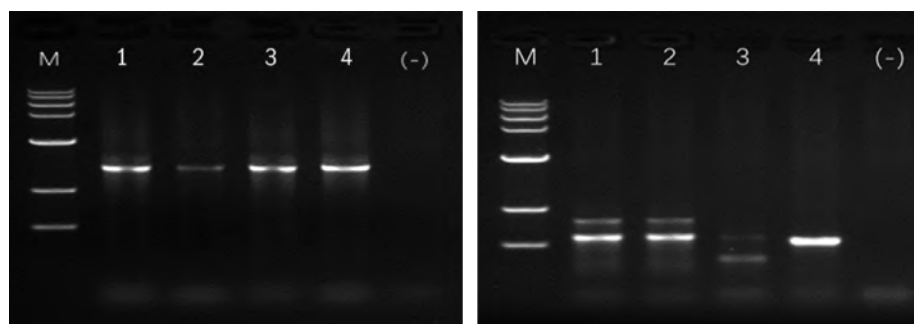
**SPINeasy® DNA Kit for Water** is specially designed to achieve quick isolation of genomic DNA from various types of water. This kit employs silica-membrane spin-column technology to effectively bind DNA. The resulting high-quality DNA can be used for downstream analyses. The kit is supplied with 5 mL lysing matrix and a sterile 0.22 µm filter membrane.

## Product Performance



Lane M: DNA ladder  
Lane 1: 100 mL river water  
Lane 2: 165 mL pond water  
Lane 3: 1000 mL sea water  
Lane 4: 15 mL sewage

gDNA extracted from different types of water samples using SPINeasy® DNA Kit for Water, analyzed using 1 % agarose gel, and electrophoresed at 70 V for 30 min



Lane M: DNA ladder  
Lane 1: River Water  
Lane 2: Pond Water  
Lane 3: Sea Water  
Lane 4: Sewage  
Lane (-): Negative Control


16S- PCR (left) & ITS-PCR (right) amplification of gene from different types of water samples using SPINeasy® DNA Kit for Water

Samples	Sample Volume <sub>(mL)</sub>	Yield <sub>(ng/μL sample)</sub>	A <sub>(260/280)</sub>	A <sub>(260/230)</sub>
River Water	100	46.22	1.88	1.90
Pond Water	165	19.85	1.86	2.32
Sea Water	1000	28.39	1.92	2.00
Sewage	15	120.32	1.83	1.65

## Order Information

Product Name	Size	Catalogue No.
SPINeasy® DNA Kit for Water	50 preps	116536050
	5 preps	116536000





Optimize your environmental research workflow with MP  
Biomedicals sample preparation solution.

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