

- Perfect Solutions for your most Precious Samples
- Complete Kits including Specialized Lysing Matrix Tubes to make Biological Sample Lysis Easy
- ► High RNA yield, purity and integrity

#### 20 YEARS OF EXPERTISE IN SAMPLE PREPARATION AND MOLECULAR BIOLOGY

MP BIOMEDICALS www.mpbio.com

# INTRODUCTION

# Explore our Portfolio of RNA Extraction Kits to Find the Right Solution for your Application

MP Biomedicals supplies a complete range of organic-based, spin column-based as well as magnetic beads-based extraction kits for the isolation of high quality DNA-free RNA.

Efficient lysis of the starting material and simultaneous inactivation of endogenous RNases is achieved by mixing the sample with the lysis buffer in a 2mL tube containing lysing matrix beads that is then processed in a FastPrep homogenizer or equivalent bead beater.

After a centrifugation step to pellet the lysing matrix beads and cell debris, the RNA is purified with the reagents supplied in the kit using a ready-to-use protocol.

Total RNA isolated with MP Biomedicals kits has a high purity and is ready-to-use for a broad panel of down-stream applications: Next-Gen sequencing, RT-PCR, cDNA-library, TaqMan® analysis and array technologies, Northern Blot, RNA dot blots and *in vitro* translation.





#### **Sample Holders**

Any Size, Any Temperature



#### **Lysing Matrix Tubes**

16 combinaison of beads to grind any sample



#### **DNA/RNA Extraction Kits**

Ready-to-Use Protocols for DNA, RNA and Protein Isolation from any Sample!

- **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.

# RNA ISOLATION AND PURIFICATION KIT SELECTION GUIDE

Sample Type	Product Name	Cat. No.	Technology	Prep No.	Page
Human, animal and plant tissues, cultured cells	FastRNA Pro Green Kit	116045050	Organic Extraction	50 Preps	4
	SPINeasy RNA Kit for Tissue	116543050	Silica Spin Columns	50 Preps	5
cens	Magbeads FastRNA Kit	116572096	Magnetic Beads	96 Preps	18
Formalin-fixed paraffin- embedded tissues and cells	Magbeads FastRNA Kit for FFPE	116573192	Magnetic Beads	192 Preps	18
Gram positive and gram negative bacteria, bacterial spores, virus	FastRNA Pro Blue Kit	116025050	Organic extraction	50 Preps	7
	SPINeasy RNA Kit for Bacteria	116541050	Silica spin columns	50 Preps	8
Bacteria	Magbeads FastRNA Kit	116572096	Magnetic beads	96 Preps	18
Virus	Magbeads FastDNA/ RNA Kit for virus	116571792	Magnetic beads	192 Preps	19
Yeast, fungi	FastRNA Pro Red Kit	116035050	Organic extraction	50 Preps	10
	FastRNA SPIN Kit for Yeast	116030050	Silica spin columns	50 Preps	11
Microorganisms and other specimens found in soil and other environmental samples (extraction from the sample without prewash step)	FastRNA Pro Soil Direct Kit	116070050	Organic extraction and purification	50 Preps	12
	FastRNA Pro Soil Indirect Kit	116075050	with silica spin filters	50 Preps	13
Any sample DNA/ RNA and Protein from a Single Sample			Silica spin columns	50 Preps	14
Agarose and polyacrylamide gels as well as any solution	lyacrylamide gels as RNaid SPIN Kit		Silica and spin filters	200 Preps	15

# ANIMAL & PLANT TISSUES ANIMAL & PLANT TISSUES

#### **FASTRNA PRO GREEN KIT**

- ▶ EFFICIENT: Lysis of human, animal, and plant tissues with Lysing Matrix D tubes
- ► CONSISTENT YIELDS: RNA isolation with the singlereagent RNAPro solution
- HIGH-QUALITY: RNA is ready-to-use for a variety of downstream applications









The FastRNA Pro Green Kit is optimized for purification of total RNA from human, animal and plant samples. Add 50-300 mg of tissue to a 2 ml tube containing Lysing Matrix D and the proprietary RNApro Solution. After one 40 second run in the FastPrep Instrument, total RNA is isolated via chloroform extraction and ethanol precipitation.

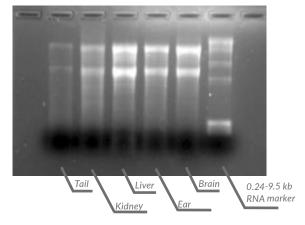


Figure 1 - Rat total RNA extracted with the FastRNA Pro Green Kit. Approximately 2% of the total RNA isolated from 100 mg frozen tissue was loaded on to a 1.2% denaturing agarose gel (1X MOPS).

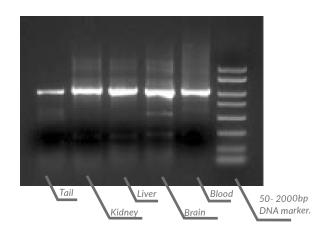


Figure 2 - RT-PCR of actin genes from rat RNA extracted with the FastRNA Pro Green Kit. 20% of the RT-PCR reaction was loaded on a 1.2% agarose gel (0.5X TAE).

## SPINEASY RNA KIT FOR TISSUE

- **EFFICIENT**: Lysis of any human, animal, plant tissue or cell culture sample with Lysing Matrix A tubes
- CONVENIENT: Silica spin column method for an easy extraction process
- HIGH-QUALITY: RNA is ready-to-use for a variety of downstream applications
- **► ENVIRONMENTALLY FRIENDLY:** No toxic chemicals









SPINeasy RNA Kit for Tissue is a silica-membrane spin-column kit that enables quick and convenient purification of total RNA from various human/ animal tissues, plant tissues and tissue cultures.

The use of Lysing Matrix A tubes enables highly efficient lysis of tissue samples within seconds. Purified RNA is of high quality and immediately ready for RT-PCR and other downstream applications.

Sample	Starting Amount (mg)	Extraction Results		
		Concentration	<b>A</b> <sub>260/280</sub>	<b>A</b> <sub>260/230</sub>
Rabbit Liver	21.4	626.46	2.08	2.19
Rabbit Spleen	14.0	310.53	2.04	2.26
Rabbit Kidney	22.3	237.88	2.06	2.21
Rabbit Lung	21.4	159.24	2.01	2.26
Rabbit Heart	22.5	54.56	2.01	2.82
Ginkgo Biloba Leaf	51.3	132.93	2.09	2.21
Prunus Davidiana Leaf (wild peach)	52.7	382.08	2.07	1.94
Cherry Leaf	48.5	294.06	2.06	1.91
Begonia Leaf	52.0	368.66	2.06	1.94
Tomato Leaf	52.2	663.82	2.10	2.28
Peanut Leaf	70.2	898.92	2.10	2.31
Potato Leaf	52.4	491.20	2.14	2.30

#### ANIMAL & PLANT TISSUES

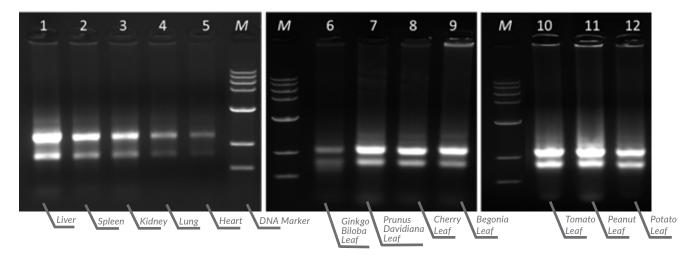


Figure 1: RNA extracted from various samples using SPINeasy RNA Kit for Tissue, analyzed using agarose gel electrophoresis.

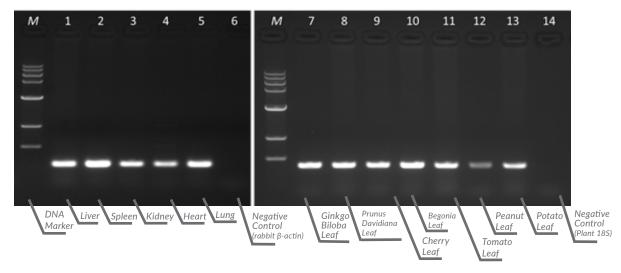


Figure 2: RT-PCR amplification of RNA extracted from various samples using SPINeasy RNA Kit for Tissue.





#### **FASTRNA PRO BLUE KIT**

- ▶ EFFICIENT: Lysis of any gram-positive and gram-negative bacteria with Lysing Matrix B tubes
- CONSISTENT YIELDS: RNA isolation with the single-reagent RNAPro solution
- ► HIGH-QUALITY: RNA is ready-to-use for a variety of downstream applications









50 Preps



The FastRNA Pro Blue Kit is optimized for purification of total RNA from both gram positive and gram negative bacteria. Add a pellet of up to 10<sup>10</sup> cells in suspension to a 2 ml tube containing Lysing Matrix B and the proprietary RNApro Solution. After one 40 second run in the FastPrep Instrument, total RNA is isolated via chloroform extraction and ethanol precipitation.



- Optimal cell disruption for any sample
- Size of the beads and composition optimized according to the sample
- No cross contamination with closed Lysing Matrix tubes
- Available in 2ml, 4.5ml, 15ml, 50ml tubes or 96 well plates
- Fit any high-speed bead-beating machines



#### SPINEASY RNA KIT FOR BACTERIA

- ▶ EFFICIENT: Lysis of any gram-positive and gram-negative bacteria with Lysing Matrix B tubes
- ▶ CONVENIENT: Silica spin column method for an easy extraction process
- ► HIGH-QUALITY: RNA is ready-to-use for a variety of downstream applications
- **ENVIRONMENTALLY FRIENDLY:** No toxic chemicals









SPINeasy RNA Kit for Bacteria is a silica-membrane spin-column kit that enables quick and convenient purification of total RNA from gram-positive and gram-negative bacteria. A specially formulated RNASS solution that stabilizes and protects RNA in bacteria samples is included in the kit.

The use of Lysing Matrix B tubes in combination with a FastPrep instrument enables highly efficient lysis of bacterial samples within seconds.

Total RNA of high quality is purified within 40 minutes and is immediately available for RT-PCR and other downstream applications.

Sample	Starting Amount (mg)	Extraction Results			
		Concentration	<b>A</b> <sub>260/280</sub>	<b>A</b> <sub>260/230</sub>	
E. Coli	Pellet from 3 mL overnight culture	763.59	2.10	2.26	
S. Aureus	Pellet from 3 mL overnight culture	349.47	2.13	2.04	

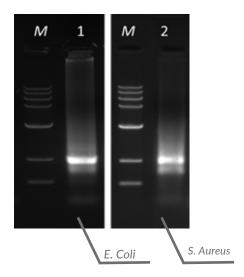


Figure 1: Total RNA extracted from bacteria samples using SPINeasy RNA Kit for Bacteria, analyzed using agarose gel electrophoresis. M: DNA marker; Lane 1: E. coli; Lane 2: S. aureus.

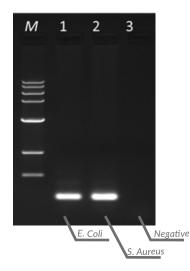


Figure 2: RT-PCR amplification of RNA extracted from bacteria samples using SPINeasy RNA Kit for Bacteria. M: DNA marker; Lane 1: E. coli; Lane 2: S. aureus; Lane 3: Negative control.

#### CASE STUDY

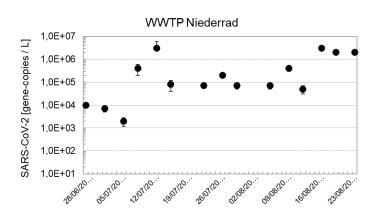
## **SARS-COV-2 RNA IN WASTEWATER**

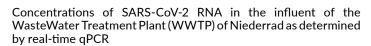


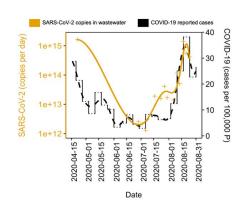
# A Proven-Method for the Isolation of pure RNA from Wastewater ready-to-use for monitoring the SARS-CoV-2 RNA concentration in sewage

Long-term monitoring of SARS-CoV-2 RNA in wastewater of the Frankfurt metropolitan area in Southern Germany.

- ▶ EFFICIENT MECHANICAL LYSIS OF VIRAL PARTICLES: with Lysing Matrix B tubes containing 0.1mm silica beads included in the kit
- ▶ HIGH YIELDS OF PURE RNA: with the RNApro reagent developed to protect RNA from degradation by RNases and to isolate RNA via a phenol chloroform extraction method
- SUCCESSFUL RT-qPCR ANALYSIS: extracted viral RNA was used as a template in a multiplex assay targeting the N-, S- and ORF1ab viral genes.







SARS-CoV-2 load as sum of the two WWTP influents as analyzed with RT-qPCR in comparison to the positive tested COVID-19 cases in the city of Frankfurt am Main.



#### **FASTRNA PRO RED KIT**

- ▶ EFFICIENT: Lysis of yeast and fungi with Lysing Matrix C tubes
- ▶ CONSISTENT YIELDS: RNA isolation with the single-reagent RNAPro solution
- HIGH-QUALITY: RNA is ready-to-use for a variety of downstream applications









The FastRNA Pro Red Kit is optimized for purification of total RNA from yeast and fungi. Add a pellet of up to 10<sup>10</sup> cells in suspension to a 2 ml tube containing Lysing Matrix C and the proprietary RNAPro Solution. After one 40 second run in the FastPrep Instrument, total RNA is isolated via chloroform extraction and ethanol precipitation.

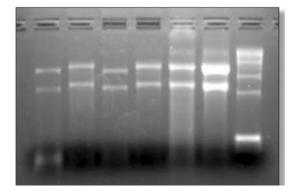


Figure 1 - Yeast and fungal total RNA extracted with the FastRNA Pro Red Kit. Approximately 2% of the total RNA isolated from  $100\,\mathrm{mg}$  tissue or  $10^{10}$  cells was loaded onto a 1.2% denaturing agarose gel (1X MOPS). Lane 1: S. pombe; Lane 2: S. cerevisiae; Lane 3: P. pastoris; Lane 4: C. albicans; Lane 5: common mushroom; Lane 6: small common mushroom; Lane 7: 0.24-9.5kb RNA Ladder.

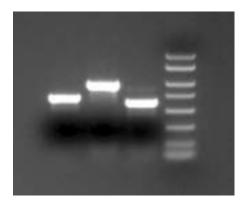


Figure 2 - RT-PCR of actin genes from yeast and fungal RNA extracted with the FastRNA Pro Red Kit. 20% of the RT-PCR reaction was loaded on a 1.2% agarose gel (0.5X TAE). Lane 1: S. cerevisiae; Lane 2: P. pastoris; Lane 3: C. albicans; Lane 4: 50-2000bp DNA marker.

#### **FASTRNA SPIN KIT FOR YEAST**

- **EFFICIENT:** Lysis of yeast and fungi with Lysing Matrix Y tubes
- **RAPID AND REPRODUCIBLE:** Purification of intact high quality total RNA with the use of specialized spin columns
- ► HIGH-QUALITY: RNA is ready-to-use for a variety of downstream applications
- **ENVIRONMENTALLY FRIENDLY:** No toxic chemicals











The FastRNA SPIN Kit for Yeast quickly and efficiently isolates high-quality, total RNA from tough-to-lyse yeast strains and fungi in approximately 30 minutes using Lysing Matrix Y tubes for cell lysis and spin columns for the purification process. High quality total RNA is eluted with RNase-free water. Both large and small RNA species are recovered with this protocol.



- Hundreds of formulation for bacteria and yeast
- Capsule format eliminates weighing, dust and cleanup
- simply drop capsules in water and autoclave





The FastRNA Pro Soil-Direct and Indirect kits are designed to efficiently isolate total RNA from organic material found in soil samples, soil supernatants or any other environmental samples.

The direct method consists of extracting nucleic acid from microorganisms and other biological specimens directly from soil. The indirect method utilizes an initial separation of microorganisms and other biological specimens from the soil followed by lysis of the organisms and RNA purification. FastRNA Pro Soil kits purify RNA in a process that removes humic substances and other inhibitors and efficiently inactivates cellular RNases during homogenization to prevent RNA degradation. Purified RNA is thus suitable for RT-PCR analysis and other downstream applications.

## **FASTRNA PRO SOIL DIRECT KIT**

- ▶ RAPID & EFFICIENT: Thorough sample lysis in seconds of any soil and environmental sample with Lysing Matrix E tubes
- ► HIGH PURITY: 2 levels of purification to remove efficiently humic acids and other inhibitors
- ▶ RELIABLE: Cellular RNases are inactivated during homogenization to prevent RNA degradation





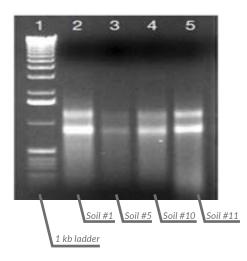
**Organic Extraction** 



50 Preps

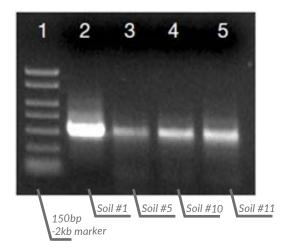


The FastRNA Pro Soil-Direct is designed to efficiently isolate total RNA from organic material found in soil samples. Following processing with Lysing Matrix E in the FastPrep Instrument, samples are extracted with chloroform and cleaned with RNAMATRIX and other proprietary reagents. Purified RNA is suitable for RT-PCR analysis, Next-Gen Sequencing and other downstream applications.



Total RNA extracted from Soil Samples with the FastRNA® Pro Soil-Direct Kit.Approximately 15% of the total RNA isolated from 0.5 g of four different soil samples was loaded on to a 0.8% agarose gel.

#### SOIL & ENVIRONMENTAL SAMPLES



RT-PCR of Fungal Gene from Total RNA Isolated from Soil Samples with the FastRNA® Pro Soil-Direct Kit. Approximately 40% of the RT-PCR reaction was loaded on to a 0.8% agarose gel.

#### **FASTRNA PRO SOIL INDIRECT KIT**

- CLEAN: Initial separation of microorganisms and other biological specimens from soil
- ▶ RAPID & EFFICIENT: Thorough sample lysis in seconds of any microorganism present in soil and environmental sample with Lysing Matrix E tubes
- CONSISTENT: Efficient removal of PCR inhibitors and inactivation of cellular RNases during the homogenization step





**Organic Extraction** 

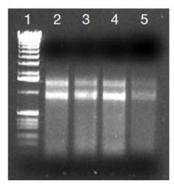


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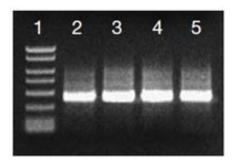


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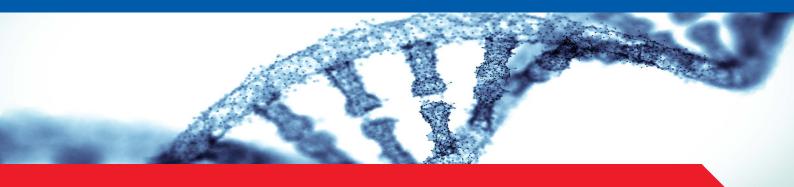
The FastRNA Pro Soil Indirect Kit is designed to efficiently isolate total RNA from organic material found in soil samples or soil supernatants. Following processing with Lysing Matrix E in the FastPrep Instrument, samples are extracted with chloroform and cleaned with RNAMATRIX and other proprietary reagents. Purified RNA is suitable for RT-PCR analysis, Next-Gen Sequencing and other downstream applications.



Total RNA extracted from Soil Samples with the FastRNA® Pro Soil-Indirect Kit. Approximately 15% of the total RNA isolated from four different soil samples was loaded on to a 0.8% agarose gel. Lane 1: 1kb ladder, Lane 2: RNA from 5 g Soil #1, Lane 3: RNA from 10 g Soil #2, Lane 4: RNA from 5 g Soil #7, Lane 5: RNA from 5 g Soil #10.



RT-PCR of Fungal Gene from Total RNA Isolated from Soil Samples with the FastRNA® Pro Soil-Indirect Kit. Approximately 40% of the RT-PCR reaction was loaded on to a 0.8% agarose gel. Lane 1: 150bp – 2kb marker, Lane 2: Soil #1, Lane 3: Soil #2, Lane 4: Soil #7, Lane 5: Soil #10.



## SIMULTANEOUS PURIFICATION OF RNA, DNA AND PROTEINS

### SPINEASY DNA/RNA/PROTEINS ALL-IN-ONE KIT

- ▶ RAPID: Isolate DNA/RNA/Protein from a single sample in one hour
- **EFFICIENT:** Lysis of any resistant sample with Lysing Matrix A tubes
- ► CONVENIENT: Easy-to-use silica spin column method for the DNA and RNA extraction process
- ► HIGH-QUALITY: DNA, RNA and proteins are suitable for a variety of downstream applications
- **ENVIRONMENTALLY FRIENDLY:** No toxic chemicals





**Silica Spin Columns** 



50 Preps



116544050

SPINeasy DNA/RNA/Protein All-In-One Kit utilizes a convenient workflow and silica-membrane spin columns to isolate DNA, RNA and protein components from the same sample.

After an efficient cell lysis by bead beating with Lysing Matrix A tubes, DNA is adsorbed onto the first spin column, while the flow-through is collected and used for RNA purification. The second spin column captures RNA and the flow-through from this step is used for protein extraction.

DNA and RNA are bound on the first and second columns, respectively, and then washed and eluted. In the final extraction, proteins are precipitated out of solution, pelleted down by centrifugation, washed and resuspended.

Each molecular component is then immediately available for their respective downstream applications.

Sample	Starting Amount (mg)	Extraction Results						
		DNA RNA			RNA		Protein	
		<b>Yield</b> (μg/mg sample)	<b>A</b> <sub>260/280</sub>	<b>A</b> <sub>260/230</sub>	Yield A <sub>260/280</sub> A <sub>260/230</sub>		<b>Yield</b> (μg/mg sample)	
Kidney	17.7	1.28	1.83	2.42	1.30	2.04	2.23	14.12
Spleen	12.4	1.81	1.84	2.45	1.81	2.04	2.22	20.81
Liver	17.0	1.09	1.84	2.89	3.48	2.07	2.17	10.16

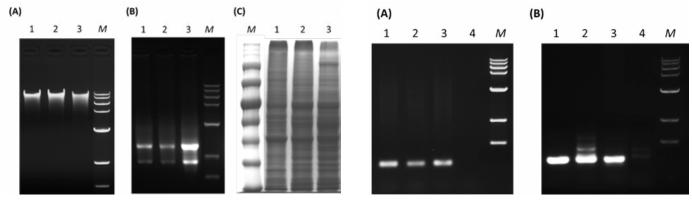


Figure 1 (left): (A) DNA; (B) RNA; (C) protein extracted from each animal tissue using SPINeasy DNA/RNA/Protein All-In-One Kit, analyzed using gel electrophoresis. M: DNA marker; Lane 1: Kidney; Lane 2: Spleen; Lane 3: Liver.

Figure 2 (right): (A) PCR amplification of DNA and (B) RT-PCR amplification of RNA extracted from various samples using SPINeasy DNA/RNA/Protein All-In-One Kit. M: DNA marker; Lane 1: Kidney; Lane 2: Spleen; Lane 3: Liver; Lane 4: Negative control.

#### **RNA CLEAN UP**

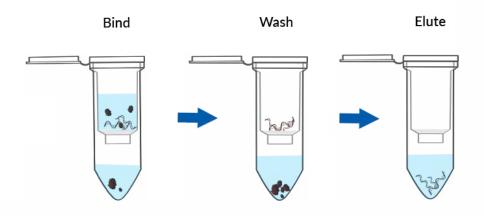
#### **RNAID SPIN KIT**

- MAXIMUM RECOVERY: >90% recovery of RNA fragments of up to 10 kb
- RAPID: 3 easy steps bind, wash and elute
- ▶ HIGH QUALITY: RNA is ready-to-use for any downstream application including reverse transcription and Next-Gen Sequencing



The RNaid SPIN Kit contains all the reagents and materials necessary for the isolation and purification of RNA from agarose and polyacrylamide gels as well as from any solution in 20 minutes.

This kit in combination with the FastDNA SPIN Kit for Soil (Cat N°: 116560200) is also used to co-extract RNA and DNA from the same soil sample (protocol described in the article: Tournier E. et al, MethodsX. 2015 Mar 27;2:182-91).



#### CASE STUDY

# SIMULTANEOUS ISOLATION OF DNA AND RNA FROM SOIL



Combined use of:

FastPrep-24 instrument Cat. No. 116004500

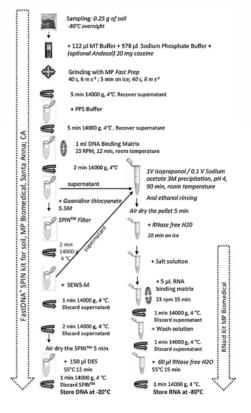
FastDNA SPIN Kit for Soil Cat. No. 116560200

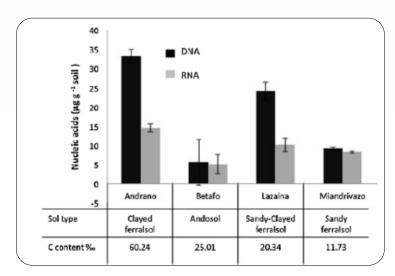
RNaid SPIN Kit Cat. No. 111107200

Tournier, E.; Amenc, L.; Pablo, A. L.; Legname, E.; Blanchart, E.; Plassard, C.; Robin, A.; Bernard, L. MethodsX. 2015, 182.

A comparison of the composition of microbial communities based on co-extraction of both DNA and RNA provides insight into the ecology of populations, provided that DNA and RNA are subjected to the same extraction bias. This study describes the isolation of soil nucleic acids with simultaneous extraction and purification of DNA and RNA following a cascade scheme involving the FastDNA SPIN Kit for Soil, the FastPrep instrument and the RNaid Kit and avoiding the use of harmful solvents

- **Reproducible:** The coextraction protocol was optimized on a sandy clay loam soil. Yields of 26.7 μg of purified DNA and 4.5 μg of purified RNA per gram of soil were obtained with very good repeatability for both DNA and RNA.
- **Reliable:** The four tropical soils from Madagascar were extractable and gave various DNA and RNA recovery yields sufficiently concentrated to be further analyzed by any other molecular technique.
- **Efficient:** The protocol was efficient on different tropical soils, including Andosol, where their high contents of clays, including poorly crystalline clays, and Fe and Al oxides typically make the nucleic acid extraction more difficult.





DNA (black) and RNA (light grey) extraction yields and their respective 95% confidence intervals (alpha 0.05, 3 replicates) from 4 tropical soils, sampled in Madagascar and characterized by different textures, mineralogies, metal and carbon contents.

# **MPURE-32 SYSTEM**



# FULLY AUTOMATED MAGNETIC BEAD-BASED NUCLEIC ACID EXTRACTION SYSTEM



- Fast and Consistent Results
- Superior Purity and Yield
- High-efficiency and stability

CE

MPure-32™ aNAP System is a fully automatic platform for magnetic reagent assays. It can process up to 32 samples simultaneously within a short period of time (around 40 to 60 minutes). Still achieves Scientific and Diagnostic requirement with safe operating procedure.



#### MAGBEADS FASTRNA KIT

- QUICK AND SIMPLE: RNA extraction from animal and plant tissues, cells in culture as well as bacteria and yeast in one hour
- FLEXIBLE: Manual workflow or easily adaptable to automated platforms
- ► HIGH QUALITY: RNA is ready for all downstream applications including RT-PCR and Next-Gen sequencing
- **▶ ENVIRONMENTALLY FRIENDLY:** No toxic chemicals



The Magbeads FastRNA Kit combines the speed and efficiency of silica-based technology with the convenient handling of magnetic particles for purification of total RNA.

Samples are lysed and RNA is purified from lysates in one step through its binding to the silica surface of the particles in the presence of a chaotropic salt. The particles are separated from the lysates using a magnet and DNA is removed by treatment with RNase-free DNase. The magnetic particles are efficiently washed, and RNA is eluted in RNase-free water.

#### MAGBEADS FASTRNA KIT FOR FFPE

- ▶ SIMPLE AND RELIABLE: RNA extraction from tissue, cells and blood. A deparaffinization Solution is included in the kit for an efficient paraffin removal.
- FLEXIBLE: manual workflow or easily adaptable to automated platforms
- ▶ HIGH QUALITY: RNA is ready for all downstream applications including RT-PCR and Next-Gen sequencing
- **▶ ENVIRONMENTALLY FRIENDLY:** No toxic chemicals



The Magbeads FastRNA Kit for FFPE is based on the purification method of high binding magnetic particles. The sample is lysed and digested. RNA is released into the lysate.

After addition of magnetic particles and binding solution, RNA will be adsorbed on the surface of magnetic particles, and impurities such as proteins will be removed without adsorption. The adsorbed particles were washed with washing buffer to remove the proteins and impurities, washed with ethanol to remove salts, and finally the RNA was eluted with Elution Buffer.

## MAGBEADS FASTDNA/RNA KIT FOR VIRUS

- ▶ SIMPLE AND RELIABLE: Total viral nucleic acid from cell-free/low-cell content biological samples such as body fluids, serum, plasma as well as tissue homogenates and culture supernatant.
- ▶ FLEXIBLE: manual workflow or easily adaptable to automated platforms
- ▶ HIGH QUALITY: nucleic acids are suitable for a variety of downstream applications
- **▶ ENVIRONMENTALLY FRIENDLY:** No toxic chemicals



The Magbeads FastDNA/RNA Kit for Virus is based on the purification method of high binding magnetic particles.

The sample is lysed and digested with Protease. DNA/RNA is released into the lysate. After addition of magnetic particles and binding solution, DNA/RNA will be adsorbed on the surface of magnetic particles, and impurities such as proteins will be removed without adsorption. The adsorbed particles are washed with washing solution to remove proteins and impurities, washed with ethanol to remove salts, and finally DNA/RNA is eluted with Nuclease Free Water.

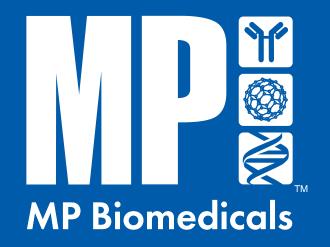
Need more information on our RNA Kits?

Visit our webpage





Would like to try one of our RNA Kits?
Request your FREE sample!



#### **MP BIOMEDICALS**

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