

Quick-Start Manual

Revision 1.0 Dec 2023

Notes before starting:

- Dilute Buffer MW1/MW2 with absolute ethanol and store at room temperature.
- Add 5 mL Protease Dissolve Buffer to the Proteinase K.

Manual Extraction

Sample Preparation

1. Using a scalpel, trim off the excess paraffin on the sample block. Cut up to 8 sections (5~20 μm) and immediately transfer samples into a 2 mL microcentrifuge tube or a 2 mL 96-well sample plate (not provided).

Note: Discard the first 2 to 3 sections of sample if it has been exposed to air.

2. Add 600 μL Buffer DPS into the sample tube. Vortex the tube for 5 s and briefly centrifuge to bring down the sample.

3. Incubate at 56°C for 3 to 5 mins and vortex for 5 s to dissolve the paraffin.

Note: The Buffer DPS may turn opaque or cloudy. If this occurs, add additional Buffer DPS and repeat Step 2.

4. Centrifuge at 14,000 x g for 2 mins and carefully discard the supernatant without disturbing the pellet.

5. Add 150 μL Buffer FRL and 20 μL Proteinase K into the sample and vortex. Incubate at 55°C for 15 mins. then incubate at 80°C for 15 mins. Briefly centrifuge the sample and proceed to extraction step.

Note: Incubation at 80°C can reverse the nucleic acids modified by formaldehyde. Prolonged incubation time will cause degradation of RNA.

Extraction

1. Add 20 μL Magbeads Particles and 300 μL Isopropanol to the well of 96 deep-well Plate. Pipette mix 10 times and shake at 700~900 rpm for 6 mins. Place the deep-well plate on a magnetic plate and allow the beads to aggregate for 5 mins. With the plate on the magnetic stand, perform the aspiration, and discard the supernatant from the plate.

2. Add 500 μL Buffer MW1 and shake at 900~1200 rpm for 1 min to resuspend the beads. Place the tube on the magnetic rack for 1 min, then remove the supernatant. Leave the plate on the magnetic separation device. Wait 1 minute. Remove residual liquid with a pipettor. Dry the Magbeads particles for an additional 1 min.

3. Add 100 μL DNase Mixture (100 μL DNase Buffer + 10 μL DNase I) to the sample. Mix by shaking at 600~900rpm for 10~15 mins.

4. Add 600 μL Buffer MW1 to the sample, shake for 5 mins. Place the tube on the magnetic rack for 1 min, then remove the supernatant.

5. Add 500 μL Buffer MW2 and shake for 1 min to resuspend the beads. Place the tube on the magnetic rack for 1 min, then remove the supernatant.

6. Repeat step 5 once.

7. Leave the plate on the magnetic separation device. Wait 1 min and remove the residual liquid with a pipettor. Dry the Magbeads particles for additional 3-5 mins.

8. Add 30~100 μL RNase Free Water to the sample and mix by shaking for 5 mins. Place the tube on the magnetic rack for 3 mins.

9. Transfer the clear supernatant containing purified RNA to a new tube, and store the RNA at -20°C.

Ordering Information

Equipment

Automated extraction system from low to high throughput

Catalog No.	Product Name	Throughput
07EMC043	MPure-32™ aNAP System	Up to 32 samples
07EMC044	MPure-96™ aNAP System	Up to 96 samples



Instruments for lysing and homogenizing environmental and biological samples

Catalog No.	Product Name
116004500	FastPrep™ Classic
116005500	FastPrep-24™ 5G
116010500	FastPrep-96™
116012500	SuperFastPrep-2™

Reagents

Wide range of reagent kits for extracting and purifying various types of environmental and biological samples for downstream applications.



Catalog No.	Product Name	Pack Size
117033100	(MPure-32™) MagBeads FastDNA Kit for Soil (Ready-to-Use)	96 preps
117033200	(MPure-32™) MagBeads FastDNA Kit for Feces (Ready-to-Use)	96 preps
117033300	(MPure-32™) MagBeads FastDNA/RNA Kit for Virus (Ready-to-Use)	96 preps
117033400	(MPure-32™) MagBeads FastRNA Kit (Ready-to-Use)	96 preps
117033500	(MPure-32™) MagBeads FastRNA Kit for FFPE (Ready-to-Use)	96 preps
117033600	(MPure-32™) MagBeads FastDNA Kit (Ready-to-Use)	96 preps
117033700	(MPure-32™) MagBeads FastDNA Kit for Blood (Ready-to-Use)	96 preps
117033800	(MPure-32™) MagBeads FastDNA Kit for FFPE (Ready-to-Use)	96 preps
117033900	(MPure-32™) MagBeads Fast Circulating DNA Kit (Ready-to-Use)	96 preps



MP BIOMEDICALS

APAC: +65 6775 0008 | custserv.ap@mpbio.com
EUROPE: 00800 777 9999 | custserv.eur@mpbio.com
AMERICAS: 800 854 0530 | custserv.na@mpbio.com
Learn more at www.mpbio.com



Scan for detailed instruction manual

