

MagBeads FastRNA Kit

Ready-to-Use for MPure-32™ aNAP System



Cat. No.: 117033400 (96 PREPS)

Quick-Start Manual

Revision 3.0 Dec 2023

Notes before starting:

- Add 2.4 mL Protease Dissolve Buffer into Proteinase K bottle, and store at -20°C after it dissolves.
- Dilute Buffer MCB with isopropanol (ratio of Buffer MCB:Isopropanol = 3 : 7) and store at room temperature.
- (Optional) 2-mercaptoethanol can be added into an aliquot of RTL Lysis Buffer before use. Add 20 µL 2-mercaptoethanol per 1 mL RTL Lysis Buffer. This mixture can be stored at room temperature for 2 weeks.

Automation Extraction

Sample Preparation

Sample Type	Recommendations
Cell	Harvest cells (no more than 1×10^7 cells). For pelleted cells, loosen the cell pellet thoroughly by flicking the tube and add the appropriate volume of 500 µL Buffer RTL. For direct lysis of cells grown in a monolayer, add 500 µL Buffer RLT onto the cell-culture dish. Pass the lysate at least 5 times through a blunt 20-gauge needle fitted to an RNase-Free Syringe.
Animal Tissue	Do not use more than 20 mg of animal tissue. Disrupt and homogenize the sample, then add 600 µL Buffer RTL. After lysis, centrifuge the lysate at 14,000 x g for 3 min at room temperature.
Plant Tissue	Disrupt the plant sample using liquid nitrogen. Transfer up to 50 mg of powder to 1.5 mL microcentrifuge tube and add 600 µL Buffer RTL. Vortex and centrifuge at 14,000 x g for 3 mins at room temperature.
Yeast Cell	Collect 5×10^6 yeast cells, then add 300 mg 0.4-0.6 g Glass Beads and 600 µL RTL Lysis Buffer. Vortex at maximum speed for 10 mins. Centrifuge at 10,000 x g for 3 mins at room temperature.
Bacterial Cell	Collect 1×10^8 bacterial cells, then add 300 mg 0.1-0.26 g Glass Beads and 600 µL RTL Lysis Buffer. Vortex at maximum speed for 10 mins. Centrifuge at 10,000 x g for 3 mins at room temperature.

1. Transfer **500 µL** of lysate and **20 µL** of Proteinase K carefully to well **#1** or **#7** of the pre-filled reagent
2. Add **10 µL** of **DNase I** into well **#3** or **#9**.
3. Place the reagent plate on MPure-32™ aNAP System and run the assay with the program named “FastRNA” which has the following setting:

Step	Well	Process	Time (s)			Mixing Speed	Temp (°C)
			Mix	Wait	Attract		
1	#1/#7	Mix	60	0	60	Medium	RT
2	#2/#8	Magbeads Preparation	0	600	90	Low	RT
3	#1/#7	Bind	90	0	60	Medium	RT
4	#3/#9	DNase I Digestion*	60	900	60	Very Low	RT
5	#3/#9	Addition of Buffer MCB	60	300	60	Medium	RT
6	#4/#10	Wash 1	90	0	60	Medium	RT
7	#5/#11	Wash 2	90	0	60	Medium	RT
8	#5/#11	Dry	0	300	0	Medium	RT
9	#6/#12	Elute	300	0	120	Medium	RT
10	#1/#7	Magbeads Release	60	0	0	Medium	RT

***Note:** The program will pause (buzzer will sound) after the DNase I digestion step in well #3 and/or #9. At this step, press the buzzer button to stop the buzz, then add 450 µL of Buffer MCB into well #3 and/or #9. Press the pause button to continue the program to the end.

4. Transfer clear purified RNA to a clean 96-well microplate (not provided). The eluent is now ready for downstream applications. Store purified RNA at -80°C for an extended storage.

Note: If there are still Magnetic Beads remaining in eluent, please centrifuge at 14,000 x g for 3-5 mins and transfer the supernatant into a clean 1.5 mL microcentrifuge tube.

Extraction

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



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