MagBeads FastRNA Kit for Virus

(Ready-to-use for MPure-96™ aNAP System)

Cat. No.: 117036100 (96 PREPS)

Revision 1.0 Aug 2023

Quick-Start Protocol

Scan for detailed instruction manual

Notes before starting:

- ❑ Prepare Carrier RNA Solution: Dissolve the contents of each vial of Carrier RNA in 350 µL of RNase-free water. Use immediately and store remaining at -20 °C in aliquots.
- ❑ Prepare Proteinase K Solution: Dissolve the contents of each vial of Proteinase K in 1.2 mL of Proteinase K Buffer. Use immediately and store remaining at -20 °C in aliquots.

Lysis Mix

1. Prepare lysis mixture containing 20 µL **Proteinase K Solution**, 280 µL **Lysis Buffer VRM (PF)** and 5 µL **Carrier RNA Solution** per prep, with excess volume.

Example: For 96-prep, prepare a master mix containing 2 mL Proteinase K Solution, 28 mL Lysis Buffer VRM (PF) and 500 µL Carrier RNA Solution.

Load

2. Add 100 – 200 µL of sample into each well in **Magnetic Beads VRM** plate.
3. Add 305 µL of lysis mixture prepared in step 1 into each well in Magnetic Beads VRM plate containing the samples.

Run

4. Run the following program on MPure-96™ aNAP System.

Plate position	1	2	3	4	5	6	7	8
Component	Magnetic Beads VRM	Wash Buffer VRM 1	Wash Buffer VRM 2	Wash Buffer VRM 2	-	Elution Buffer		96 spin tips
Volume (uL)	695	500	500	500	0	100	0	
Preheat	25	25	25			25		
Action	For.U/D	For.U/D	For.U/D	For.U/D	----	For.U/D	----	
Name	LB	WB1	WB2	WB2		EB		TIP

Step	Plate	Temp	Mixing (min)	Spin (rpm)	Collect (sec)	Vapor (min)
1	1		10.0	3000	150	
2	2		3.0	3000	150	
3	3		3.0	3000	150	
4	4		3.0	3000	150	
5	4		0.0	0	0	10.0
6	6	55	5.0	3000	300	
7	0		0.0	0	0	

Elute

5. At the end of the run, RNA is eluted in **Elution Buffer** plate.
6. Centrifuge the plate at 5,000 g for 5 mins to pellet down residual beads. Alternatively, transfer each eluted RNA from Elution Buffer plate into a clean 1.5 mL microcentrifuge tube and centrifuge at 14,000 g for 2 mins. Use clear supernatant for downstream applications.
7. Keep eluted RNA chilled on ice and proceed immediately to perform downstream applications.
8. Store remaining RNA at -80˚C in aliquots and avoid repeated freeze-thawing.

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Flow Chart

Lysis Mix

Load Sample

Run

Store Elute

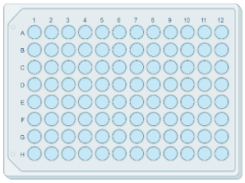
Step 1: Prepare Lysis Mix for total number of preps with excess volume

Up to 96 samples
Note: Each sample will take up the same position in every plate, for example, sample in A1 will go through position A1 in every plate and elute in A1 of Elution Buffer (Plate #6)

	Per prep	96 preps (with excess)
Proteinase K Solution	20 µL	2 mL
Lysis Buffer VRM (PF)	280 µL	28 mL
Carrier RNA Solution	5 µL	500 µL

Step 2: Add Sample and Lysis Mix

Magnetic Beads VRM (Plate #1)



Per well:

100 – 200 µL Sample
305 µL Lysis Mix

Step 3: Load on MPure-96 and run program

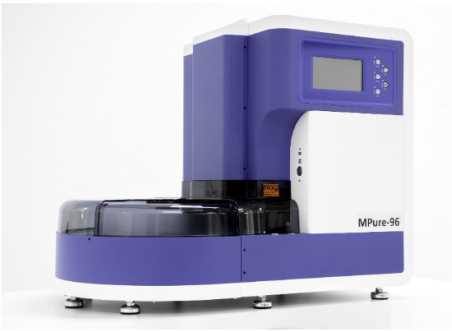
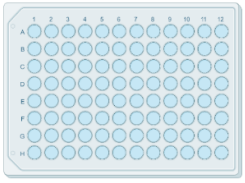


Plate position	1	2	3	4	5	6	7	8
Component	Magnetic Beads VRM	Wash Buffer VRM 1	Wash Buffer VRM 2	Wash Buffer VRM 2	-	Elution Buffer		96 spin tips
Volume (ul)	695	500	500	500	0	100	0	
Preheat	25	25	25			25		
Action	For.U/D	For.U/D	For.U/D	For.U/D	----	For.U/D	----	
Name	LB	WB1	WB2	WB2		EB		TIP

Step	Plate	Temp	Mixing (min)	Spin (rpm)	Collect (sec)	Vapor (min)
1	1		10.0	3000	150	
2	2		3.0	3000	150	
3	3		3.0	3000	150	
4	4		3.0	3000	150	
5	4		0.0	0	0	10.0
6	6	55	5.0	3000	300	
7	0		0.0	0	0	

Step 4: Store Eluted RNA

Elution Buffer (Plate #6)



→ *5min 5K g*

Pellet residual beads

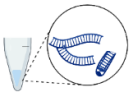
Or

→ Transfer each elute into a clean 1.5 mL microcentrifuge tube

→ *2min 14K g*

Pellet residual beads

→ Virus RNA is eluted in clear supernatant



Store RNA at -80°C

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