MagBeads FastRNA Kit for Virus

(Ready-to-use for MPure-32™ aNAP System)

Cat. No.: 117035100 (96 PPREPS)

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Quick-Start Protocol

Revision 1.0 Aug 2023

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.

Scan for detailed instruction manual



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 a 16-prep, prepare a master mix containing 340 μ L Proteinase K Solution, 4.76 mL Lysis Buffer VRM (PF) and 85 μ L Carrier RNA Solution.

- 2. Add $100 200 \mu L$ of sample into each well in column positions 2 or 8 of a **Reagent Plate VRM**.
- 3. Add 305 μL of lysis mixture prepared in step 1 into each well in column positions 2 or 8 containing the samples.

 Well 2 Well 8

Sample 1 Sample 2 Sample 3 Sample 4 Sample 5 Sample 6	200	3 4 5	\$\frac{7}{0}\cdot{0}\cdot{0}{0}\cdot{0}\cdot{0}{0}\cdot{0}{0}\cdot{0}{0}\cdot{0}{0}\cdot{0}{0}\cdot{0}\cdot{0}{0}\cdot{0}{0}\cdot{0}{0}\cdot{0}\		9 10 11 12	Sample 9 Sample 10 Sample 11
Sample 2 Sample 3 Sample 4 Sample 5	Ô	000			0000	Sample 10
Sample 3 Sample 4 Sample 5	0				0000	•
Sample 4 Sample 5	O	000	OC	0	0000	Sample 11
Sample 5						
		000	00			Sample 12
Sample 6	0	000	OC	0		Sample 13
	0	000	00	0		Sample 14
Sample 7	0	000	00			Sample 15
Sample 8		000	00	0		Sample 16

4. Run the following program on MPure-32™aNAP System.

Step Well		Process	Volume (μL)		Time (s)		Mixing Speed	Temp (°C)
				Mix	Wait	Attract		
1	2	Bind	695	600	0	150	Fast	RT
2	3	Wash 1	500	180	0	120	Fast	RT
3	4	Wash 2	500	180	0	120	Fast	RT
4	5	Wash 3	500	180	0	150	Fast	RT
5	5	Dry	500	0	600	0	- -	RT
6	6	Elute	100	300	0	150	Fast	55
7	2	Abandon Beads	695	60	0	0	Medium	RT

- 5. After the run is complete, transfer each eluted RNA from Wells 6 or 12 into a clean 1.5 mL microcentrifuge tube.
- 6. Centrifuge at 14,000 g for 2 mins to pellet down residual beads. Use clear supernatant for downstream applications.
- 7. Keep eluted RNA chilled on ice and proceed immediately to perform downstream applications. Store remaining RNA at -80°C in aliquots and avoid repeated freeze-thawing.

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Flow Chart

Load Sample

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

Instrument Capacity: Up to 16 samples per plate, 32 samples per run (2 plates)

	Per prep	16 preps	32 preps	
		(with excess)	(with excess)	
Proteinase K Solution	20 μL	340 μL	680 μL	
ysis Buffer VRM (PF)	280 μL	4.76 mL	9.52 mL	
Carrier RNA Solution	5 μL	85 μL	170 μL	

Step 2: Add Sample and Lysis Mix

Well 2 Well 8							
	1	2	3 4 5 6 7	8	9 10 11 12		
Sample 1	A C	0	00000		0000	Sample 9	
Sample 2	В	0	00000		0000	Sample 10	
Sample 3	c 🔾	0	00000			Sample 11	
Sample 4	D O		00000		0000	Sample 12	
Sample 5	E C		00000			Sample 13	
Sample 6	F				0000	Sample 14	
Sample 7	G 🔵				0000	Sample 15	
Sample 8	о н	0	00000	0	0000	Sample 16	
						J	

Add to Well 2 or 8:

100 – 200 μL Sample 305 µL Lysis Mix

Step 3: Load on MPure-32 and run program



Step Well		Process		Time (s)		Mixing Speed	Temp (°C)	
			Mix	Wait	Attract			
1	2	Bind	600	0	150	Fast	RT	
2	3	Wash 1	180	0	120	Fast	RT	
3	4	Wash 2	180	0	120	Fast	RT	
4	5	Wash 3	180	0	150	Fast	RT	
5	5	Dry	0	600	0	-	RT	
6	6	Elute	300	0	150	Fast	55	
7	2	Abandon Beads	60	0	0	Medium	RT	

Step 4: Transfer each elute from Well 6 or 12 into a clean 1.5 mL microcentrifuge tube

	W€	ell 6 W	ell 12	
	1 2 3 4 5 6	7 8 9 10 11	12	
Sample 1	° ^ O O O O (00000		Sample 9
Sample 2	BOOOO(00000		Sample 10
Sample 3	00000	00000		Sample 11
Sample 4	DOOO(00000		Sample 12
Sample 5	E00000	00000		Sample 13
Sample 6	F00000	00000		Sample 14
Sample 7	GOOOO	00000		Sample 15
Sample 8	© н ○ ○ ○ ○ ○ ○	00000		Sample 16

Virus RNA is eluted in clear supernatant 2min 14K g

Pellet residual beads

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



