Mag-Bind® Viral RNA XPress Kit

Revision No: 3.0

Quick Guide

Product	M6219-2304
Purifications	24 x 96
Mag-Bind® Particles RQ	13 mL
TNA Buffer	640 mL
Carrier RNA	3 mg
RMP Buffer	500 mL
Nuclease-Free Water	250 mL

Important:
If automating this procedure on a liquid handler or a magnetic processor, please contact your Omega Bio-tek representative for instrument-specific instructions.

Supplied by user:

- Magnetic separation device (Recommend Alpaqua#A000380)
- Vortexer
- 96-well Microplate (500 µL)
- 96-well deep-well plates (Recommend Nunc #278752)
- Multichannel pipettes and reagent reservoirs
- 80% ethanol
- 100% isopropanol
- PBS for Dry Swabs

Before starting:

- Dilute RMP Buffer by adding 500 mL of 100% isopropanol to the bottle containing RMP Buffer.
- Add 3 mL Nuclease-Free Water to Carrier RNA to dissolve Carrier RNA. Divide into conveniently sized aliquots, and store at -20°C.
- Vortex Mag-Bind® Particles RQ to completely resuspend.

Storage & Stability:

- Mag-Bind® Viral RNA Xpress Kit components are guaranteed for at least 12 months from the date of purchase when stored as follows. Mag-Bind® Particles RQ must be stored at 2-8°C. Carrier RNA upon resuspension must be stored at -20°C. All remaining components should be stored at room temperature.

Viral RNA Extraction from NP Swabs

LYSE

1. Depending on your swab transport method pick the appropiate protocol for removing the viral particles from the swab.

   A. For Swabs in Universal Viral Transport Media: Shake the swabs for 30 minutes

   Or

   B. For Dry Swabs: Add PBS Buffer to the swab to completely submerge the swab. Shake for 30 minutes.

2. Freshly prepare the following Lysis master mix for 96 samples.

Buffer	Volume
TNA Lysis Buffer	26.4 mL
Carrier RNA	105 µL

BIND

3. Transfer 200 µL universal viral transport media or PBS to each well.
4. Add 240 µL Lysis master mix (TNA/Carrier RNA) to each sample. Vortex or pipet up and down 20 times to mix.
5. Prepare the following Binding master mix for 96 samples. Vortex Mag-Bind® Particles RQ to completely resuspend.

Buffer	Volume
100% isopropanol	30 mL
Mag-Bind® Particles RQ	530 µL

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BIND

WASH

ELUTE

6. Add 280 µL Binding master mix (isopropanol/Mag-Bind® Particles RQ) and mix by pipetting up and down 10 times. Make sure Mag-Bind® Particles RQ are resuspended completely in Binding master mix prior to use. Vortex for 10 minutes to mix. If constant vortexing for 10 minutes is not possible, vortex for 30 seconds every 2 minutes for a total of 10 minutes.
7. Place the plate on a magnetic separation device. Let sit at room temperature until the Mag-Bind® Particles RQ are completely cleared from solution.
8. Aspirate and discard the cleared supernatant. Do not disturb the Mag-Bind® Particles RQ. Remove the plate from the magnetic separation device.
9. Add 350 µL RMP Buffer diluted with 100% isopropanol (see the bottle for instructions). Vortex for 5 minutes to mix. Complete resuspension of the Mag-Bind® Particles RQ is critical for obtaining good purity.
10. Place the plate on the magnetic separation device. Let sit at room temperature until the Mag-Bind® Particles RQ are completely cleared from solution.
11. Aspirate and discard the cleared supernatant. Do not disturb the Mag-Bind® Particles RQ.
12. Remove the plate from the magnetic separation device. Add 350 µL 80% Ethanol. Vortex for 5 minutes to mix.
13. Place the plate on the magnetic separation device. Let sit at room temperature until the Mag-Bind® Particles RQ are completely cleared from solution.
14. Aspirate and discard the cleared supernatant. Do not disturb the Mag-Bind® Particles RQ.
15. Repeat Steps 12-14 once.
16. Leave the plate on the magnetic separation device. Wait 1 minute. Remove residual liquid with a pipettor. Dry the Mag-Bind® Particles RQ for an additional 5-10 minutes. Remove the plate from the magnetic separation device.
17. Add 50-100 µL Nuclease-free water. Vortex for 10 minutes to mix. If constant vortexing for 10 minutes is not possible, vortex for 30 seconds every 2 minutes for a total of 10 minutes.
18. Place the plate on the magnetic separation device to magnetize the Mag-Bind® Particles RQ. Let sit at room temperature until the Mag-Bind® Particles RQ are completely cleared from solution.
19. Transfer the cleared supernatant containing purified RNA to a 96-well microplate (not provided). Store RNA at -80°C.

Distributed by:

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