MQ Viral RNA Extraction Kit

Cat No. VRE-M-001-50
Size: 50 Preparations

MOLEQULE-ON®

Components	Quantity
Buffer Rlysis VG	30 ml
Universal RPE Solution*	12 ml
RNase Free Water	5 ml
MQ Spin Column with 2ml Collection Tube	50

Preparations

* Universal RPE Solution is supplied in a concentrated form, before use, add 48 ml 96-100% ethanol to 12 ml concentrated universal RPE solution and mix well.

Description

MQ Viral RNA Extraction Kit simplifies isolation of viral RNA from cell-free body fluids with fast spin-column format. No phenol/chloroform extraction is required. Viral RNA binds specifically to the silica membrane while contaminants are removed in the flow- through. PCR inhibitors such as divalent cations and proteins are completely removed in two efficient wash steps, leaving pure viral RNA to be eluted in RNase-free Water. Purified RNA is ready to use in RT-PCR, Northern blotting or other downstream applications.

Features

- Fast: Using a rapid spin column format, the entire procedure takes about 20 minutes.
- High Yield: The recovery yield of viral RNA is generally >85%.
- Versatile: Suitable for purification of viral RNA from a wide range of specimens, including serum, plasma, cell culture media, and milk.
- Non-toxic: No phenol/chloroform are used.

Storage

MQ Viral RNA Extraction Kit should be store at 2-8°C.

Materials and Equipment Required but Not Supplied

- Microcentrifuge capable of at least 12,000 × g.
- RNase-Free pipettes and pipette tips.
- Vortexer.
- RNase-Free Ethanol (96-100%).
- RNase-Free Microcentrifuge tubes (1.5 ml or 2 ml).

Before Starting

- Care must be taken when working with RNA.
- It is important to maintain an RNase-free environment, starting with RNA sample preparation and continue through purification and analysis. Use RNase free tubes, tips, gels.
- Wear gloves at all times.

Sample Preparation

1. Sample Preparation

A) Liquid viral sample: Enrichment of virus - Transfer appropriate liquid sample to a new 1.5 ml microtube, centrifuge at 24,000 g for 60 minutes at 4°C. Then keep approx. 0.2 ml solution in the tube but discard the others.
B) Swab sample: Place the swab into a clean 1.5 ml microtube, and snap off the handle. Add 1 ml physiological saline, vortex for 30 seconds. Then transfer 0.2 ml solution to a new 1.5 ml microtube.

Procedure

2. Add 0.6 ml of Buffer Rlysis VG into the tube (step 1), vortex vigorously for 30 seconds; incubate at room temperature for 10 minutes.

NOTE: Lysis-Buffer-VG may form precipitate at 4°C, please dissolve it at 65°C and mix well before use.

3. Add equal volume of ethanol, mix by inverting the tube.

4. Transfer the mixture into the MQ spin column; keep at room temperature for 2 minutes.

5. Spin at 10,000 g for 1 minute, discard the flow-through.

6. Add 0.5 ml of Universal RPE Solution to the column, spin at 10,000 g for 1 minute, and discard the flow-through.

7. Repeat the Step 6 once.

8. Centrifuge at 10,000 g for 1 minute, discard the flow-through residue.

9. Transfer the column to a new 1.5 ml RNase-free microtube. Add 30-100 µl of RNase-free Water onto the centre of the column; keep at room temperature for 2 minutes.

10. Spin at 10,000 g for 1 minute. Purified viral RNA is ready for use or keep at -20°C for long term storage.