



Viral RNA+DNA Preparation Kit

Spin column based RNA+DNA purification from blood, serum, tissue or cell culture

Cat. No.	Amount
PP-223S	50 preparations
PP-223L	5 x 50 preparations

For *in vitro* use only!

Shipping: shipped at ambient temperature

Storage Conditions: store at ambient temperature

Shelf Life: 12 months

Description:

Viral RNA+DNA Preparation Kit is designed for rapid and effective isolation of RNA and DNA from a variety of pathogen organisms such as virus or bacteria. Samples can be fresh or frozen plasma/blood (treated with anticoagulants excepted heparin), serum, other cell-free body fluids or pathogen-infected tissue. The Kit is specifically designed to isolate high-quality nucleic acids using low elution volumes and allowing sensitive downstream analysis including quantitative PCR and RT-PCR. The purified RNA/DNA is free of proteins and nucleases. Viral RNA+DNA Preparation Kit uses lysis buffer including chaotropic salts to inactivate RNases/DNases and advanced silica-gel membrane technology for fast purification of intact RNA/DNA. The preparation procedure is optimized to give reproducible results within 30 min.

Content:

Component	PP-223S 50 Prep Kit	PP-223L 5 x 50 Prep Kit
PBS Buffer	8 ml	5 x 8 ml
Lysis Buffer	35 ml	5 x 35 ml
Binding Buffer	35 ml	5 x 35 ml
Washing Buffer A	30 ml	5 x 30 ml
Washing Buffer B	10 ml (add 40 ml ethanol before use)	5 x 10 ml (add 40 ml ethanol to each bottle before use)
Elution Buffer	20 ml	5 x 20 ml
Spin Columns and Collection Tubes	50 columns and tubes	5 x 50 columns and tubes

Additional Materials Required:

96-99% Ethanol

1.5 ml Tubes



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Preparation procedure:

1a Preparation from plasma, serum, urine, cell-culture supernatant, cell-free fluid or virus infected tissue

- Transfer 150 µl plasma, serum, urine, cell-culture supernatant, cell-free fluid or virus infected tissue into a 1.5 ml microtube.
- Note: Adjust lower sample volumes with PBS Buffer to 150 µl. Samples of larger volumes (up to 300 µl) can easily be scaled up but may require larger tubes for the lysis procedure.
- Add 300 µl (2 amounts of sample volume) of **Lysis Buffer**.
- Vortex for 15 sec.
- Incubate at room temperature (20-25 °C) for 10 min.
- Add 300 µl (2 amounts of sample volume) **Binding Buffer** and mix well by gently vortexing.

1b Preparation from nasal or throat swabs

- Transfer 150 µl **PBS Buffer** into a 1.5 ml microtube.
- Add 300 µl of **Lysis Buffer**.
- Cut off the cotton tip with the collected nasal or throat cells and place it in the micro tube.
- Close the tube and vortex for 15 sec.
- Incubate at room temperature (20-25 °C) for 10 min.
- Add 300 µl **Binding Buffer** and mix well by gently vortexing.

2 Column Loading

- Place a **Spin Column** into a provided 2 ml collection tube.
- Load lysate on the column and centrifuge at 13,000 g for 1 min.
- Note: The maximum volume of the column reservoirs 800 µl. For larger sample volumes discard the flow-through and load the column / spin again.
- Discard the flow-through in the collection tube and place the column back in the same tube.

3 Column Washing

- Add 500 µl **Washing Buffer A** to the **Spin Column** and centrifuge at 13,000 g for 1 min.
- Discard the flow-through in the collection tube and place the Spin Column back in the same tube.
- Add 500 µl **Washing Buffer B** to the Spin Column and centrifuge at 13,000 g for 1 min.
- Note: Before using Washing Buffer B for the first time add ethanol as indicated on the bottle.
- Discard the flow-through in the collection tube and place the Spin Column back in the same tube.
- Centrifuge at 13,000 g for 1 min.
- Note: It is important to dry the membrane since residual ethanol may interfere with downstream reactions.

4 Elution

- Place the **Spin Column** into a new 1.5 ml microtube (not provided).
- Add 30-60 µl **Elution Buffer** directly onto the membrane of the spin column.
- Note: Avoid touching membrane with the pipet tip.
- Incubate at room temperature for 1 min.
- Centrifuge at 13,000 g for 1 min.
- The eluted RNA and/or DNA is ready for down-stream processing. Use 2-5 µl as template for PCR or RT-PCR.