

FastPure Viral DNA/RNA Mini Kit Instruction for Use (Version 1.0)

PRODUCT NAME

FastPure Viral DNA/RNA Mini Kit

CATALOG NUMBER & SIZE

RC311-C1: 100 reactions

INTENDED USE

This product is intended for rapid viral DNA/RNA isolation from different kinds of specimens including plasma, serum, nasopharyngeal swab, sputum, bronchoalveolar lavage fluids, ascites, supernatant of cell culture and urine.

PRINCIPLE

Based on the technology of purification of silica gel column, the specimens are lysed in the lysis solution, then the nucleic acid is released.

The lysis solution containing high concentration guanidine salt, so the nucleic acid could be absorbed on filter membrane by the hydrogen bond and electrostatic interaction, while protein and other impurities cannot be absorbed. The isolation of total nucleic acid with high purity, free of protein and other impurities, and can be used in various downstream experiments such as Reverse Transcription, PCR, RT-PCR, Real-Time PCR, Next Generation Sequencing and Northern Blot.

PRODUCT CONTENTS

Components	Amount	Function
Lysis Solution	50 mL	Providing condition for cell lysis and binding nucleic acid to the column.
Washing Buffer	120 mL	Removes proteins and other impurities.
Elution Buffer	6 mL	Nuclease free solution for the elution of nucleic acid.
Adsorption Column	100 tubes	Adsorbing viral nucleic acid.
Collection Tube (2 mL)	100 tubes	Collection tube for filtrate.
Collection Tube (1.5 mL)	100 tubes	Collection tube for nucleic acid.

STORAGE

All components should be stored and transported at room temperature (15°C~25°C).

NOTES

- Additional Materials Required: RNase-free tips, 1.5 ml of RNase-free tubes, centrifuges.
- Virus has a strong infective ability, protect yourself before operation.
- The specimens should avoid freezing-thawing repeatedly, otherwise would result in degradation and yield reduction of extracted viral RNA.
- All operation are performed at room temperature (15°C-25°C) without special reminders.
- Wear a laboratory suit, gloves and mask during operation, use the RNase-free materials to avoid RNase contamination.
- The Lysis Solution may precipitate when stored at low temperature. Dissolve at room temperature for a while, if necessary, or preheat at 37°C for 10 min to thaw the precipitation and mix thoroughly before use.

PROCEDURES



Add 500 µl of Lysis Solution and 200 µl of sample to the 1.5 ml of RNase-free tube, mix thoroughly by vortex.



Transfer the mixture to the adsorption column, centrifuge at 12,000 × g for 1 min, and discard the filtrate.

Add 600 µl of Washing Buffer to the adsorption column, centrifuge at 12,000 × g for 30 sec, and discard the filtrate.

(Repeat once)

Centrifuge empty adsorption column at 12,000 × g for 2 min.



Add 50 µl of Elution Buffer, Incubate at room temperature for 1 min, centrifuge at 12,000 × g for 1 min, and collect the filtrate.

1. PROTOCOL

Using Vazyme Sample Stabilizer #R513 for specimen collection, please refer the protocol as follows:

INACTIVATION TREATMENT

Even though Sample Stabilizer can inactivate the virus, but it is still recommended to do a complete heat inactivation of 2019-Novel Coronavirus by incubate the specimen at 56 °C for 30 minutes and balance at room temperature for 10 minutes avoiding aerosols;

EXTRACTION

- Aliquot 200 µL of absolute ethanol to a new 1.5 mL of nuclease-free EP tube (additional consumable).
- Add 500 µL of the above sample stabilizer to the tube containing absolute ethanol, then mix thoroughly by inverting the tube.
- Place the adsorption column in a 2 ml of collection tube and transfer the mixture to the adsorption column, cover the tube cap then centrifuge at 12,000 × g for 1 min.
- Discard the filtrate and reuse the collection tube. Add 600 µl of Washing Buffer to the adsorption column, and centrifuged at 12,000 × g for 30 sec, discard the filtrate.
- Repeat **Step 4** once.
- Transfer the adsorption column to a new 1.5 ml centrifuge tube (provided in the kit), add 50 µl of Elution Buffer, Incubate at room temperature for 1 min, centrifuge at 12,000 × g for 1 min.
- Discard the adsorption column, the eluted DNA/RNA can be used directly in downstream experiments or stored at -20°C for short-term storage, or stored at -70°C for long-term storage.

2. PROTOCOL

Using specimen collection products from other companies, please refer the protocol as follows:

INACTIVATION TREATMENT

Further inactivation treatment should be taken as required before extraction. For heat inactivation of 2019-Novel Coronavirus, it is recommended to incubate at 56 °C for 30 minutes, and balance at room temperature for 10 minutes avoiding aerosols;

EXTRACTION

1. Add 500 µl of Lysis Solution to the 1.5 ml of RNase-free tube.

(For multiple samples, it is recommended to dispense into each tube.)

2. Add 200 µl of sample to the tube containing Lysis Solution, then mix thoroughly by vortex.

(If the sample is less than 200 µl, make up to 200 µl with sterile saline solutions).

3. Place the adsorption column in a 2 ml of collection tube and transfer the mixture to the adsorption column, centrifuge at 12,000 × g for 1 min.

4. Discard the filtrate and reuse the collection tube. Add 600 µl of Washing Buffer to the adsorption column, and centrifuged at 12,000 × g for 30 sec, discard the filtrate.

5. Repeat **Step 4** once.

6. Transfer the adsorption column to a new 1.5 ml centrifuge tube (provided in the kit), add 50 µl of Elution Buffer, Incubate at room temperature for 1 min , centrifuge at 12,000 × g for 1 min.

7. Discard the adsorption column, the eluted DNA/RNA can be used directly in downstream experiments or stored at -20°C for short-term storage, or stored at -70°C for long-term storage.

ANNEXE

For the situation without Sample Stabilizer, the swab should be immersed in the saline solution. Then please refer to **2. PROTOCOL** for the extraction operation.

But, 2019-Novel Coronavirus is infectious! It is recommended to place the swab in the Preservation solution which contains the inactivation reagent for Virus.

CONTACT

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DATE OF APPROVAL AND MODIFICATION OF INSTRUCTION

March 8th, 2020

DATE OF MANUFACTURE AND EXPIRATION

See packaging.

Symbols

EC REP	Authorized Representative
IVD	For in vitro diagnostic use only
	Store between 15-25°C

	Tests per kit
REF	Catalog #
LOT	Lot Number

	Manufacturer
	Expire Date
	Consult instructions for use

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