Viral RNA/DNA extraction kit

Code No.： NG3011S 50 T

NG3011M 100 T

Contents	storage	50 T	100 T
Buffer VL	RT	15 ml	30 ml
Carrier	-20 ℃	200 µl	400 µl
Buffer RE	RT	25 ml	50 ml
Buffer RW	RT	15 ml	25 ml
		Add absolute alcohol before use	
Proteinase K (20 mg/ml)	-20 ℃	1 ml	2 ml
Buffer EB	RT	8 ml	15 ml
Spin Columns RD	RT	50	100
Collection tubes（2 ml）	RT	50	100

Important Note：

All solutions should be clear. If the ambient temperature is low, the solutions may form precipitates and should not be used directly. In such cases, they be heated in a 37 ℃ water bath for a few minutes to restore clarity. Improper storage at low temperatures (4 ℃ or -20 ℃) can precipitation in the solutions and affect the performance, therefore both transportation and storage should be carried out at room temperature (15 ℃ – 25 ℃). To avoid volatilization, oxidation, and pH changes caused by prolonged exposure the reagents to air, the caps of each solution should be tightly closed immediately after use.

Introduction：

Buffer VL is a wide range use reagent for total RNA extraction. The color of reagent is bright, the operation is fast and convenient. Buffer VL allows the adsorption of RNA onto silica membrane, then the impurities were removed by Buffer RE and RW, finally, RNA was eluted from the silica matrix membrane by RNase-free H_2O. It can be used in in RT-PCR, Real-time RT-PCR, Northern Blot, Dot Blot, in vitro translation, etc.

Safety Information:

1. Fast and simple, the operation of a single sample can generally be completed within 20 minutes.
2. Lysis buffer VL and RE contain irritating and harmful compounds. Wear latex gloves during operation to avoid contact with skin, eyes and clothing. If contact with skin or eyes occurs, rinse with plenty of water or saline.
3. All centrifugation steps were performed at room temperature.

Operation Procedure:

Tip: Before the first use, please add absolute alcohol in the buffer RW and mark it.

1. Blood sample (10–100 µl of whole blood up to 200 µl with PBS) or tissue sample containing virus (power of 2-10 mg of virus-infected tissue, add 200 µl of PBS).

2. Add 250 µl of buffer VL, 20 µl of Proteinase K, 3 ul carrier to every 200 µl sample, and pipette the liquid sample up and down several times with a micropipette to help lyse the cells in the sample. Incubate at 56 ℃ for 15 min to completely decompose the nucleoprotein complexes

3. Centrifuge at 12,000 rpm for 3 min. Pipette the aqueous phase out into a new tube.
4. Add 250 µl ethanol, invert to mix (a precipitate may form at time). Transfer the resulting solution and any possible precipitate into a micro-adsorption column RD (the adsorption column is placed inside a collection tube). Stand for 2 min.
5. Centrifuge for 30 s at 12,000 rpm. Discard the flow-through and set the Spin Column RD back into the Collection Tube.
6. Add 500 µl of Buffer RE to the Spin Column and centrifuge for 30 sec, 12,000 rpm. Discard the flow-through and place the Spin Column back in the same collection tube.
7. Add 600 µl of Buffer RW to the Spin Column and centrifuge for 30 sec, 12,000 rpm. Discard the flow-through and place the Spin Column back in the same collection tube.
8. Repeat step7.
9. Centrifuge for an additional 2 min, 12,000 rpm. Place the Spin Column into a clean 1.5 ml microcentrifuge tube.
10. Add 15-35 µl of RNase-free H_2O to the center of the membrane, let the column stand for 2 min, then centrifuge for 1 min at 12,000 rpm. Stored at -70 ℃.