RNAclean cleaning and purification kit

Code No.： NG313S 50 T

NG313M 100 T

Contents	storage	50 T	100 T
Buffer RC	RT	20 ml	50 ml
Buffer RE	RT	25 ml	50 ml
Buffer RW	RT	15 ml	25 ml
		Add absolute alcohol before use	
RNase-free H_2O	RT	10 ml	15 ml
Spin Columns RA	RT	50	100
Collection tubes（2 ml）	RT	50	100

This product can be stored at room temperature for 12 months without affecting its effectiveness.

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.

Safety Information:

1. buffer RC 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.
2. Multiple rinsing steps to remove proteins result in higher RNA purity.
3. Good repeatability.

Appendix: On-column digestion with DNase I

This kit can also be used for on-column DNase digestion to remove trace DNA contamination from RNA samples. For stringent mRNA expression analysis such as quantitative real time PCR, various commercial DNase I can be purchased to digest DNA directly on the spin adsorption column RA, and the purified RNA can then be eluted for direct use

Preparation of DNase I working solution:

Take 45 μl of DNase I buffer and 5 μl of RNase-free DNase I in a centrifuge tube, and gently pipette up and down to mix into a working solution (if processing multiple columns, scale up the preparation of the working solution proportionally).

Note If excessive residual DNA leads to incomplete digestion, the amount of enzyme used can be increased proportionally to improve the digestion efficiency (e.g., 90 μl of DNase buffer and 10 μl of RNase-free DNase I).

Operation Procedure:

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

1. Add RNase-free water to the RNA sample to bring the volume up to 100 μl, add 350 μl of RC and mix well..

2. Add 250 µl ethanol (please check if anhydrous ethanol has been added first!), invert to mix (a precipitate may form at time). Transfer the resulting solution and any possible precipitate into a micro-adsorption column RA (the adsorption column is placed inside a collection tube).
3. Optional step: 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, then digest DNA refer to the appendix.
4. Centrifuge for 30 s at 12,000 rpm. Discard the flow-through and set the Spin Column RA back into the Collection Tube.
5. 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.
6. 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.
7. Repeat step7.
8. Centrifuge for an additional 2 min, 12,000 rpm. Place the Spin Column into a clean 1.5 ml microcentrifuge tube.
9. Add 30-80 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 ℃.