Product Name】 MagPure Blood RNA Precast Kit II(Auto Pure 32)

【Product Specification】 16 Preps/Kit, 96 Preps/Kit

【Intended Use】

This product is suitable for extracting RNA from anticoagulant blood, lymphocytes, buffy coat, bone marrow, cultured cells and other samples. The kit is based on the purification method of high binding magnetic particles. The purified RNA can be directly used for experiments such as RT-PCR,NGS and virus detection.

【Principle】

The sample is lysed and digested by lysis buffer and protease, and RNA/DNA is released into the lysis buffer. Add binding solution and magnetic particles to adsorb RNA/DNA, while proteins are not adsorbed and removed. The particles adsorbed with DNA/RNA are washed with washing buffer to remove proteins and other impurities, then washed with ethanol to remove salt, and finally digested with DNase to remove DNA. RNA is recovered by adding binding solution, and finally the RNA is eluted with low salt buffer.

【Main Composition】

Cat.No	Pre-filled Reagent	R6613-TL-01	R6613-TL-06
DNase I		600 µl	2 x 600 µl
Magzol 3BD		30 ml	130 ml
Buffer BCP2		5 ml	15 ml
AS Tip		2 PCS	12 PCS
2.0ml V-bottom plate	Row 1/7: 350µl Isopropanol 15µl MagPure Particles N	1 Plates	6 Plates
	Row 2/8: 350µl Isopropanol 15µl MagPure Particles N		
	Row 3/9: 500µl DNase Buffer C		
	Row 4/10: 500µl Buffer GW1		
	Row 5/11: 500µl Buffer MW2		
	Row 6/12: 70µl RNase Free Water		

【Storage conditions and validity】

DNase I should be shipped with ice pack and stored at -20°C after arrival. MagZol 3BD and Buffer BCP2 should be stored at 2–8°C upon arrival. However, short-term storage at room temperature (15–25°C) does not affect their performance. The remaining kit components can be stored at room temperature (15–25°C) and are stable for up to 18 months under these conditions.

【Applicable Instrument】

Nucleic Acid Extraction Machine such as Auto Pure 32 (Allsheng) or similar.

【Part 1: Sample Preparation】

1. Add 1.3ml MagZol 3BD into a 5-15ml centrifuge tube.
2. Add 1ml of anticoagulant blood, buffy coat, serum, plasma or other liquid samples, shake vigorously for 10-15 seconds immediately to fully disperse the sample. Vortex at high speed for 15 seconds to form a homogeneous solution, place at room temperature for 3 minutes.
   - **Fresh whole blood:** Collect whole blood into anticoagulant vacuum collection tubes that containing EDTA, and then transfer to centrifuge tubes that containing Magzol 3BD (Step 1) as soon as possible. Sufficient mixing is crucial for RNA extraction yield.
   - **Cryopreservation blood 1:** Transfer 1ml blood to a 5-15ml centrifuge tube and store at -70°C. When extracting RNA, add 1.3ml MagZol 3BD to the frozen blood directly (without thawing) and then invert or shake the tube until the sample is completely thawed. Do not thaw blood samples without reagents, as this will cause RNA degradation.
   - **Cryopreservation blood 2:** Transfer 1ml blood to a 5-15ml centrifuge tube, then add 1.3ml MagZol 3BD. Invert vigorously to mix for 10-15 seconds, place for 5 minutes at room temperature. Incubate at 60°C for 10 minutes with high-speed oscillation (1,200-1,500rpm). The lysate can be stored at -70°C for at least 2 years, at -20°C for at least 6 months, at 2-8°C for at least 15 days, and at room temperature for 7 days.
   - **DNA rich samples:** When processing bone marrow, buffy coat or animal blood which is rich in DNA, it is recommended to control the sample amount between 500 ~ 1,000µl. Transfer 300-500µl sample to a 10-15ml centrifuge tube, add sterile water or RNase Free Water to make up to 1,000µl. Invert and mix 3-5 times. Then add 1.3ml MagZol 3BD to the tube, shake

vigorously immediately for 15 seconds and then vortex to mix for 15 seconds to form a non-viscous and homogeneous homogenate. If the sample is still viscous and in-homogeneous after vortexing, pipetting repeatedly for 5-10 times to mix throughly. If the sample is too viscous, add an appropriate amount of MagZol 3BD and RNase Free Water in proportion to dilute the sample, and then shake vigorously to mix until the sample forms a homogeneous homogenate.

3. **Incubate in Water bath at 60℃ for 10 minutes, during which invert and mix once.**
4. **Optional: Add 160μl Buffer BCP2 to the mixture, shake quickly to mix for 15 seconds.**
   After processing with Buffer BCP2, the supernatant will become more clear.
5. Centrifuge at 4,500~5,000 x g for 15 minutes at room temperature.

【Part 2: Auto Pure 32 nucleic acid extractor operation】

1. Take out the components of the kit. Invert the Plates several times to re-suspend the magnetic beads. Remove the sealing bag and sealing film.
2. **Transfer 500μl supernatant (from Step 5 in Part 1) into each well of Raw 1/7 and 2/8.**
3. **Add 10μl DNase I into each well of Raw 3/9.**
4. Turn on the machine, load the AS-tip and reagent plates (A1 on left inner corner) on the machine.
5. Edit the R6613-TL-06 program and save. Start the program.
6. The program finish after about 50 minutes, take out the plates and tips.
7. Transfer the purified RNA into new 1.5ml centrifuge tubes and store at -20~8 ℃.

Recommend program for Auto Pure 32 machine

No	Step Name	Well	Volume (ul)	Mix time (sec)	Mix speed (1-10)	Drying time (sec)	Tem (37~120℃)	Magnet Segments (1-5)	Every magnet (sec)	Liquid level magnetic (sec)	Cycle (1-10)	Magnet speed (1-10)
1	Bind 1	1	850	300	7	0	/	1	120	30	1	1
2	Bind 2	2	850	300	7	0	/	1	120	30	1	1
3	Dry 1	3	500	0	0	120	/	0	0	0	0	0
4	DNase	3	500	600	8	0	/	1	60	0	1	1
6	Wash 1	4	500	90	8	0	/	1	60	0	1	1
11	Wash 2	5	500	90	8	0	/	1	60	0	1	1
12	Dry 2	6	70	0	0	240	/	0	0	0	0	0
13	Elute	6	70	240	9	0	/	2	60	0	1	1
14	Drop	5	500	30	9	0	/	0	0	0	0	0