

**Product Name】** MagPure Universal RNA Precast Kit (Auto Pure 32)

**【Product Specification】** 96 Preps/Kit

**【Intended Use】**

This product is suitable for rapid extraction of RNA from tissue, cells, blood, s and other clinical samples. RNA can be used directly for RT-PCR, quantitative RT-PCR and so on.

**【Principle】**

The Kit combines the speed and efficiency of silica-based technology with the convenient handling of magnetic particles for purification of total RNA. Samples are lysed and RNA is purified from lysates in one step through its binding to the silica surface of the particles in the presence of a chaotropic salt. The particles are separated from the lysates using a magnet and DNA is removed by treatment with RNase-free DNase I. The magnetic particles are efficiently washed, and RNA is eluted in RNase-free water.

**【Main Composition】**

Cat.No	Precast Reagent	IVD3020-TL-06
DNase I		2 x 600 µl
DNase Buffer		60 ml
RTL Lysis Buffer		60 ml
Buffer MCB		18 ml
AS-Tip		12 PCS
2.0ml V-bottom plate	Row 1/7: 500µl Buffer MCB	6 Plates
	Row 2/8: 500µl Buffer MW1	
	Row 3/9: empty	
	Row 4/10: 30µl Magpure RNA Particles 500µl Buffer MW2	
	Row 5/11: 900µl Buffer MW2	
	Row 6/12: 80µl RNase Free Water	

**【Storage conditions and validity】**

DNase I should be shipped with ice pack and stored at -20°C after arrival. However, short-term storage (up to 1 week) at room temperature (15–25°C) does not affect its performance. The remaining kit components can be stored at room temperature (15–25°C) for 18 months.

**【Applicable Instrument】**

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

**【Preparation before Use】**

- (Optional) 2-mercaptoethanol can be added to an aliquot of RTL Lysis Buffer before use. Add 20µl 2-mercaptoethanol per 1ml RTL Lysis Buffer. This mixture can be stored for 2 weeks at room temperature
- Add 42 ml (96 Preps) isopropanol to the bottle of MCB.

**【Part 1: Sample Preparation】**

- Cells Grown in Suspension (no more than  $5 \times 10^6$  cells )**  
Pellet cells by centrifugation. loosen the cell pellet thoroughly by flicking the tube. Add 500~600µl of RTL Lysis Buffer and vortex vigorously.
- Cells Grown in Monolayer ( no more than  $5 \times 10^6$  cells )**  
lyse cells directly in a culture dish by adding 600µl of RTL Lysis Buffer and passing the cell lysate several times through a blue pipette tip. Always use more RTL Lysis Buffer if in the lysate is too viscous to aspirate with a pipette.
- Animal Tissue ( Do not use more than 20 mg Tissue)**  
Homogenize no more than 20mg tissue samples in 600µl RTL Lysis Buffer using an appropriate mechanical homogenizer. Alternatively one can pulverize tissue in liquid nitrogen with mortar and pestle and transfer the powder to a clean 1.5 ml microcentrifuge tube and add RTL Lysis Buffer. After lysate, centrifuge at 14,000 x g for 3 minute at room temperature.
- Plant Tissue ( Do not use more than 100 mg Tissue)**  
Disruption Plant sample by liquid nitrogen and transfer up to 100mg power to 1.5ml Tube.Add 600µl RTL Lysis Buffer to the sample and mix well by vortexing vigorously. Centrifuge at 14,000 x g for 3 minute at room temperature.
- Whole Blood (Do not use more than 1.5ml blood)**  
Separate the leukocytes cell from 0.5~1.5ml Whole blood. Resuspend the leukocytes pellets completely by 50µl Buffe PBS. Add 450µl of RTL Lysis Buffer and vortex vigorously to lyse.

- f. **Trizol/MagZol Reagent (without chloroform extraction):**  
Following Trizol/MagZol Reagent protocol, add 600µl MagZol Reagent to lyse the sample. After lysate, centrifuge at 12,000 x g for 10 minutes at 2-8°C.
- g. **Trizol/MagZol Reagent (with chloroform extraction):**  
Following Trizol/MagZol Reagent protocol, add 1ml Trizol/MagZol Reagent to lyse the sample. After lysate, add 200µl chloroform to the lysate and centrifuge at 12,000 x g for 15 minutes at 2-8°C.
- h. **Urine (do not exceed 10ml)**  
Centrifuge the urine sample at 1,600 x g for 10 minutes to collect the cast-off cells. Remove the supernatant. Add 500~600µl of RTL Lysis Buffer and vortex vigorously to suspend the cells .

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

1. Take out the required components of the kit.
2. Inverting the Plate several times to re-suspend the magnetic beads. Remove the sealing bag and sealing film.
3. Add 400~450µl the lysate or the supernatant into each well of Raw 1/7.
4. Add 290µl DNase Buffer and 10µl DNase I into each well of Raw 3/9.  
DNase Buffer and DNase I can mix before adding in to the raw.
5. Load the plates and AS-tip on the machine.
6. Turn on the machine and start the IVD3020-TL-06 protocol.
7. The program pause at about 20 minutes. Take out the plate and add 450µl Buffer MCB to each well of Raw 3/9.
8. Place the plate back into the instrument and continue the program.
9. After the run is completed, remove the plates tips
10. Transfer the purified total RNA into new 1.5ml centrifuge tubes and store at -20 °C.

#### 【Basic Information】

	<b>Guangzhou Magen Biotechnology Co., Ltd.</b> Room 401, Building D, No. 7, Jingye 3rd Street, Yushu Industrial Park, Guangzhou Hi-Tech Industrial Development Zone, Huangpu District, Guangzhou, 510663, China <a href="http://www.magen-tec.com">www.magen-tec.com</a> +86-20-3855 5004 <a href="mailto:info@magen-tec.com">info@magen-tec.com</a>
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