【Product Name】 MagPure Universal DNA Precast Kit (Auto Pure 32)

【Product Specification】96 Preps/Kit

【Intended Use】

This product is suitable for extracting high-purity DNA from various clinical samples (blood, tissue, exfoliated cells, FFPE samples, serum, plasma, blood plaques, oral swabs, saliva, and cultured bacteria). The extracted products can be used for in vitro clinical testing.

【Principle】

This product is based on the purification method of high binding magnetic particles. The sample is lysed and digested by lysis buffer and Protease K Solution. DNA is released into the lysate. After adding magnetic particles and binding solution, DNA will be adsorbed on the surface of magnetic particles, and impurities such as proteins will be removed without adsorption. The adsorbed particles were washed with washing solution to remove proteins and impurities, washed with ethanol to remove salts, and finally DNA was eluted by Elution Buffer or Nuclease Free Water.

【Main Composition】

Cat. No	Precast Reagent	IVD3102-TL-06	IVD3102-TL-06-00
Purification times		96 Preps	16 Preps
RNase A		20 mg	4 mg
Proteinase K		50 mg	12 mg
Protease Dissolve Buffer		6 ml	1.8 ml
Buffer ATL		40 ml	6 ml
Buffer AL		40 ml	6 ml
AS-Tip		12	2
2.0ml V-bottom plate	Row 1/7: 450μl Buffer BD	6 plates	1 plate
	Row 2/8: 450μl Buffer BW1		
	Row 3/9: 450μl Buffer BW1		
	Row 4/10: 20μl Magpure Particle 450μl Buffer GW2		
	Row 5/11: 450μl Buffer GW2		
	Row 6/12: 80μl Elution Buffer		

【Storage conditions and validity】

This kit is shipped and stored at room temperature and is valid for 18 months.

【Applicable Instrument】

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

【Preparation before Use】

- Add 2.5ml Protease Dissolve Buffer into the bottle of Proteinase K, mix well and stored at - 20~8℃.
- Add 1.4ml Protease Dissolve Buffer into the bottle of RNase A, mix well and stored at - 20~8℃.

【Part 1: Sample Preparation】

A. Liquid samples (such as blood, serum, plasma, buffy coat, cell suspension, etc.)

Add 20μl Proteinase K, (optional) 5μl RNase A and 200μl samples (such as blood, yellow layer, plasma, serum, cell suspension) to a 1.5ml centrifuge tube. Add 220μl Buffer AL, vortex for 15 seconds, incubate with shaking at 70℃ for 10 minutes. Follow the Part 2 operation.

B. Dry blood spot or Seminal Stain

Transfer 3~5 slices of 3mm diameter blood spots into a 2.0ml centrifuge tube. Add 300μl Buffer ATL and 20μl Proteinase K to the sample, incubate at 55℃ with shaking (900~1200rpm) for 60 minutes. For seminal stain samples, add 10μl DTT (1M) to the lysate. Then add 150μl Buffer AL, incubate at 70℃ with shaking (900-1200rpm) for 15 minutes. Centrifuge at 13,000 x g for 2 minutes. Follow the Part 2 operation.

C. Dry swab

Transfer swab into a 2.0ml centrifuge tube. Add 20μl Proteinase K and 500μl Buffer ATL, incubate at 55℃ with shaking (900~1200rpm) for 30 minutes. Centrifuge at 13,000 x g for 2 minutes. Follow the Part 2 operation.

D. Wet swab (including cell preservation solution)

Centrifuge at 10,000 x g for 1 minute to collect exfoliated cells, discard excess storage solution, and leave the remaining 300μl preservation solution and swab. Add 100μl Buffer ATL, (Optional) 5μl RNase A and 20μl Proteinase K, incubate at 55℃ with shaking (900~1200rpm) for 30 minutes. Follow the Part 2 operation.

E. Saliva sample (including preservation solution)

Transfer 450μl swab into a 2.0ml centrifuge tube. Add 20μl Proteinase K and (Optional) 5μl RNase A, incubate with shaking at 55~65℃ for 30~90 minutes. Follow the Part 2 operation.

F. Tissue sample (<20mg tissue sample)

Transfer <20mg tissue to a 1.5ml centrifuge tube. Add 20μl Proteinase K and 200μl Buffer ATL, incubate with shaking at 55℃ for 30-120 minutes or until the sample is completely digested. Add 5μl RNase A, mix well and let sit for 10 minutes. Add 200μl Buffer AL, incubate with shaking at 70℃ for 10 minutes. Centrifuge at 13,000 x g for 2 minutes. Follow the Part 2 operation.

G. Cultured cells (< $5x10^6$ cells), exfoliated cells

Take an appropriate amount of liquid samples such as culture medium, urine, amniotic fluid or ascites into a centrifuge tube, centrifuge at 2,000 x g for 10 minutes to collect cells or exfoliated cells. Remove the culture medium and leave the remaining 100μl culture medium or body fluid, vortex to resuspend cells. Add 100μl Buffer ATL, (Optional) 5μl RNase A and 20μl proteinase K, incubate at 55℃ with shaking (900-1200rpm) for 15-30 minutes. Add 200μl Buffer AL, vortex for 15 seconds. Follow the Part 2 operation.

H: FFPE sample

Transfer paraffin embedded tissue slices into a 1.5ml centrifuge tube and remove the paraffin with xylene or a substitute (such as dewaxing solution DPS). Add 20μl Proteinase K and 220μl Buffer ATL, mix well and incubate at 55℃ for 60-90 minutes. Incubate at 90℃ for 60 minutes. Add 5μl RNase A, mix well and let sit for 10 minutes. Add 220μl Buffer AL, vortex for 15 seconds. Centrifuge at 10,000 x g for 3 min to remove the undigested particles Follow the Part 2 operation.

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.
3. Remove the sealing bag and sealing film.
4. Take out the plate, add 400~450μl digestion solution to each Row 1/7.
5. Turn on the machine and start the IVD3102-TL-06 protocol
6. After the extraction complete, ~30 minutes.
7. Remove the 96 well plate and store the purified DNA at -20~8 ℃

【Auto Pure 32 program recommendation】

Name	Plate	Mix Time (min)	Mix 1-100%	Wait	Volume (ul)	Speed (1-10)	Magnet (0-5)	Repeat (1-10)	Magnet Speed (1-10)	Stay (min)	Hover (min)	1st Step Magnet time	2nd step Magnet time	3rd step Magnet time
Magnet move	4	0.5min	70%	0	600	7	3	1	5	0	0	3	3	3
Sample	1	5min	70%	0	850	7	3	2	5	0.5	0	5	5	5
Wash 1	2	2min	70%	0	500	8	3	1	1	0	0	3	3	3
Wash 2	3	2min	70%	0	500	8	3	1	1	0	0	3	3	3
Wash 3	4	1min	70%	0	500	8	3	1	1	0	0	3	3	3
Wash 4	5	1min	70%	6min	500	8	3	1	1	0	0	3	3	3
Elute	6	8min	70%	0	100	8	3	2	5	0	0	5	5	3
Drop	5	0.2min	70%	0	500	8	0							