【Product Name】 MagPure DNA Micro Precast Kit (Auto Pure 96)

【Product specifications】 96 Preps/Kit

【Intended Use】

This product is suitable for rapid extraction of DNA from tissue, cells, blood, saliva, swabs, blood spots, semen and other clinical samples. DNA can be used directly for PCR, quantitative PCR, Southern Blot, test of virus DNA and so on.

【Principle】

This product is based on the purification method of high binding magnetic particles. The sample is lysed and digested under the action of lysate and Protease. 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.

【Main Composition】

Cat.No	Precast Reagent	IVD3101-F-96
Proteinase K		50 mg
Protease Dissolve Buffer		6 ml
Buffer ATL		30 ml
Buffer AL		30 ml
96-Tip		1
Sample Plate	400µl Buffer BD	1
Wash 1 Plate	500µl Buffer BXW1	1
Wash 2 Plate	500µl Buffer BXW1	1
Wash 3 Plate	500µl Buffer GW2, 20µl Magbind Particle	1
Elute Plate	80µl Elution Buffer	1

【Storage conditions and validity】

This kit is shipped and stored at room temperature and is valid for 18 months. If any precipitates form in Buffer ATL at low temperature, dissolve in warm bath and shake well before use.

【Applicable Instrument】

Automated Nucleic Acid Extraction Machine such as Auto Pure 96 (Allsheng) or similar.

【Preparation before Use】

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

【Part 1: Sample Preparation】

A. solid tissue (1~10mg)

1. Cut ~10mg tissue into small pieces and transfer into a new 1.5ml centrifuge tube. Add 200ul Buffer ATL and 20µll Proteinase K, Shaking at 55°C for 30~180 minutes.
2. Add 200µl Buffer AL to the samples, vortex to mix and incubation at 70°C for 10 minutes.

B. Anticoagulated blood or Plasma (200uL)

1. Transfer 20µl Proteinase K to a new 1.5ml centrifuge tube.
2. Add 200µl whole blood, plasma or other body fluids to the tube, shake to mix for 5 seconds.
3. Add 200µl Buffer AL to the samples. Inverting for 3~5 times, and then vortex at maximum speed for 10 seconds. Incubate at 70°C for 10 minutes.

C. Saliva Sample (Preserved at Orange Tube)

1. Transfer 20µl Proteinase K to 1.5ml centrifuge tube.
2. Add 300µl Saliva to the tube and shake to mix for 5 seconds. Incubate at 55°C for 30 minutes.
3. Add 100µl Buffer AL to the samples, vortex to mix.

D. Culture cells

1. Collect Cells (< 1 x 10^6) by centrifugation at 2,000 x g for 5 min. Remove the Liquids.
2. Add 200µl Buffer PBS and 20ul Proteinase K to the sample, resuspend the cells by vortexing.
3. Add 200µl Buffer AL and vortex for 10 seconds. Incubation at 70°C for 10 minutes.

E. Semen sample

1. Transfer 100µl semen to 1.5ml centrifuge tube.
2. Add 100µl Buffer ATL, 10µl DTT Soluiton (1M) and 20µl Proteinase K to the samples. Shaking at 55°C for 30 minutes.
3. Add 200µl Buffer AL to the sample, then vortex to mix and incubate at 70°C for 10 minutes.

F. Swab DNA extraction

1. Transfer the swabs to the 2ml centrifuge tube.
2. Add ~500µl ATL and 20ul Proteinase K. Shaking at 55°C for 15~30 minutes.
3. Transfer 400µl of the supernatant into a new tube.

G. Blood stains/Seminal Spots

1. Transfer the 3 slices(3mm) to the 2.0ml centrifuge tube. Add 250μl Buffer ATL and 20μl Proteinase K to the sample. Shaking at high speed for 30~60min at 55℃.
2. Add 250μl Buffer AL to the samples, Shaking at high speed for 10 min at 70℃.
3. Centrifuge at 13,000 x g for 1 min. Transfer 400μl of the supernatant to a new centrifuge tube.

H. FFPE Samples

1. Using a scalpel, trim excess paraffin off the sample block. Cut up to 1~3 sections 5–10 μm thick into a 1.5 ml microcentrifuge tube. Remove Paraffin by xylene or Buffer DPS (no provided).
2. Add 200μl Buffer ATL and 20μl Proteinase K to the sample, mix well and incubate at 56°C for 60min, 90°C for 60 min.
3. Cool to room temperature, add 200μl Buffer AL and mix well.

【Part 2: Auto Pure 96 nucleic acid extractor operation】

1. Take out the required components of the kit.
2. Inverting the Wash 3 Plate several times to re-suspend the magnetic beads.
3. Remove the sealing bag and sealing film.
4. Place a 96 tip comb for deep well magnets on Wash 3 Plate.
5. Take out the sample plate, add 400μl digestion solution to each hole
6. Turn on the machine and start the IVD3101-F-96 protocol
7. After the extraction complete, ~30 minutes.
8. Remove the 96 well plate and store the purified DNA at -20~8 °C

【Auto Pure 96 program recommendation】

Name	Plate	Mix time (min)	Mix 1-100%	Wait	Volume (ul)	Mix 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	Temp (℃)
96-Tip	5	0	0	0	500										
Bind	5	0.5min	70%	0	500	7	3	1	5	0	0	3	3	3	
Sample	2	6min	70%	0	800	7	3	2	5	0.5	0	5	5	5	
Wash1	3	1min	70%	0	500	8	3	1	1	0	0	3	3	3	
Wash 2	4	1min	70%	0	500	8	3	1	1	0	0	3	3	3	
Wash 3	5	1min	70%	6min	500	8	3	1	1	0	0	3	3	3	
Elution	8	8min	70%	0	100	8	3	2	5	0	0	5	5	3	55
Drop	5	0.2min	70%	0	500	8	0								