

【Product Name】 MagPure DNA Micro Precast Kit (Auto Pure S32)

【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-TL-06
	Proteinase K	50 mg
	Protease Dissolve Buffer	6 ml
	Buffer ATL	30 ml
	Buffer AL	30 ml
	AS-Tip	12
2.0ml V-bottom plate	Row 1/7: 400µl Buffer BD (ethanol 80%)	6
	Row 2/8: 450µl Buffer BXW1 (ethanol 56%)	
	Row 3/9: 450µl Buffer BXW1 (ethanol 56%)	
	Row 4/10: 20µl MagBind Particle 500µl Buffer GW2 (ethanol 80%)	
	Row 5/11: 450µl Buffer GW2 (ethanol 80%)	
	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. 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 S32 (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°C.

【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 200µl Buffer ATL and 20µl 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 (200µl)

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 ($< 1 \times 10^6$) by centrifugation at 2,000 x g for 5 min. Remove the Liquids.
2. Add 200µl Buffer PBS and 20µl 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 Solution (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 20µl 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°C.
2. Add 250µl Buffer AL to the samples, Shaking at high speed for 10 min at 70°C.
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 S32 nucleic acid extractor operation】

1. Take out the required components of the kit.
2. Inverting the Plates several times to re-suspend the magnetic beads.
3. Remove the sealing bag and sealing film.
4. Take out the plate, add 400µl digestion solution to each Row 1/7.
5. Turn on the machine and start the IVD3101-TL-06 protocol
6. After the extraction complete, ~30 minutes.
7. Remove the 96 well plate and store the purified DNA at -20~8 °C

【Auto Pure S32 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)	1 st Step Magnet time	2 nd step Magnet time	3 rd 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							