【Product Name】 MagPure Universal DNA Kit

【Product specifications】 20 Presp/Kit , 200 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 buffer to remove proteins and impurities, washed with ethanol to remove salts, and finally DNA was eluted by Elution Buffer.

【Main Composition】

Cat.No.	IVD3102-20	IVD3102	Composition
Purification Times	20	200	Magnetic Particles
MagPure Particles	0.6 ml	5 ml	Magnetic Particles
Proteinase K	12 mg	100 mg	Protease
Protease Dissolve Buffer	1.8 ml	10 ml	Glycorel/Tris/$CaCl_2$
RNase A	/	40 mg	Ribonuclease
Buffer ATL	6 ml	60 ml	Tris/EDTA/SDS
Buffer AL	6 ml	60 ml	Guanidine Salt
Buffer BD*	2 ml	20 ml	sodium perchlorate
Buffer BW1 *	13 ml	110 ml	Guanidine Salt
Elution Buffer	6 ml	30 ml	Tris/EDTA

【Storage conditions and Validity】

Proteinase K, RNase A, MagPure Particles should be stored at 2–8°C upon arrival. However, short-term storage (up to 24 weeks) 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 at least 18 months under these conditions.

【Preparation before Use】

- Add 0.6ml (20Preps) or 5ml (200Preps) Protease Dissolve Buffer to the Proteinase K, and store at -20~8℃ after dissolve.
- Add 2.5ml (200Preps) Protease Dissolve Buffer to the RNase A, and store at -20~8℃ after dissolve.
- Dilute Buffer BW1with 17ml (20Preps) or 140ml (200Preps) 100% ethanol and store at room temperature
- Dilute Buffer BD with 8ml (20Preps) or 80 ml(200Preps) 100% ethanol and store at room temperature
- Prepare 75% Ethanol using Absolute Ethanol and store at room temperature.

【 Protocol 】

A. solid tissue (1~20mg)

1. Cut ~20mg tissue into small pieces and transfer into a new 1.5ml centrifuge tube. Add 200ul Buffer ATL and 20ul Proteinase K, Shaking at 55°C for 30~180 minutes.
2. (Optional) Add 10 uL RNase A to the lysate and stand at room temperature for 10 min.
3. Add 200ul Buffer AL to the samples, vortex to mix and incubation at 70°C for 10 minutes.

B. Anticoagulated blood or Plasma (200uL)

1. Transfer 20ul Proteinase K to a new 1.5ml centrifuge tube.
2. Add 200uL whole blood, plasma or other body fluids to the tube, shake to mix for 5 seconds.
3. Add 200ul 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 20ul Proteinase K and 10ul RNase A to 1.5ml centrifuge tube.
2. Add 450ul Saliva to the tube and shake to mix for 5 seconds.
3. Incubate at 55°C for 30 minutes.

D. Culture cells

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

E. Semen sample

1. Transfer 100ul semen to 1.5ml centrifuge tube.

2. Add 100uL Buffer ATL, 10ul DTT Soluiton (1M) and 20ul Proteinase K to the samples. Shaking at 55℃ for 30 minutes.
3. Add 200ul Buffer AL to the sample, then vortex to mix and incubate at 70℃ for 10 minutes.

F. Swab DNA extraction

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

G. Blood stains/Seminal Spots

1. Transfer the 3 slices(3mm) to the 2.0ml centrifuge tube. Add 250ul Buffer ATL and 20ul Proteinase K to the sample. Shaking at high speed for 30~60min at 55℃.
2. Add 250ul 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 400ul 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 200ul 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 200ul Buffer AL and mix well.

Manul Purify by Magenteic Particles.

1. Add 20 μl MagPure Particles and 400 μl Buffer BD to the samples or the supernatant. Mix thoroughly by inverting for 15~30 times. Incubate for 3 min with occasionally inverting to mix. Place the tube to the magnetic stand for 1 minutes until the beads have formed a tight pellet. Then remove the supernatant.
2. Add 600μl Buffer BW1 and vortex for 15 seconds to re-suspend beads. Place the tube to the magnetic stand for 1 minute until the beads have form a tight pellet. Then remove the supernatant.
3. Add 600μl Buffer BW1 and vortex for 15 seconds to re-suspend beads. Place the tube to the magnetic stand for 1 minute until the beads have form a tight pellet. Then remove the supernatant.
4. Add 600μl 75% ethanol, and vortex for 15 seconds to re-suspend beads. Place the tube to the magnetic stand for 1 minute until the beads have form a tight pellet. Then remove the supernatant.
5. Add 600μl 75% ethanol, and vortex for 15 seconds to re-suspend beads. Place the tube to the magnetic stand for 1 minute until the beads have form a tight pellet. Then remove the supernatant.
6. Centrifuge shortly to collect liquid on the tube. Place the tube to the magnetic stand and remove all the liquid carefully. Air dry for 10 minutes.
7. Add 50~100μl Elution Buffer to the sample, re-suspend the beads by vortex. Incubate at 55℃ for 10 minutes by shaking. If there is no shaking device, vortex 2~3 times to mix .
8. Place the tube to the magnetic rack for 2 minutes. Transfer the supernatant containing the purified DNA to a clean 1.5ml centrifuge tube.

Auto Purify by KingFisher Flex

1. Add the Reagents/sample to the wells of the deep well plate according to the table below.

Name of the Plate	Pre-loaded reagents	Addition before use
Sample plate	400μl Buffer BD 20μl MagPure Particle	400μl Lysis Sample or Supernatant
Wash Plate 1	600μl Buffer BW1, Put in 96 magnetic Tip	
Wash Plate 2	600μl Buffer BW1	
Wash Plate 3	900μl 75% ethanol	
Elution plate	100μl Elution Buffer	

2. Turn on the machine, start the corresponding program(IVD3102_F_96CE).
3. Place the 96-well plate into the instrument as prompted.
4. Finish the operation after ~30 minutes.
5. Remove the 96-well plate and magnetic jacket.
6. Store the Elute product at -20~8℃.

【Basic Information】

	Guangzhou Magen Biotechnology Co., Ltd. Room 401, Building D, No. 7, Jingye 3rd Street, Yushu Industrial Park, Guangzhou Hi-Tech Industrial Development Zone, Huangpu District, Guangzhou, 510663, China www.magen-tec.com +86 20 3855 5004 info@magen-tec.com
EC REP	StateLab GmbH Friedrich-Ebert-Strasse 7, 58642 Iserlohn, Germany