

【Product Name】MagPure Circulating DNA Mini Precast Kit (32/48 Channel Machine)

【Product specification】96 Preps

【Expected usage】

This Kit is designed for purification of high quality circulating DNA (cfDNA) from cell-free body fluids (such as plasma, serum). The purified DNA is suitable for direct use in downstream applications such as PCR, real-time PCR, Biochip analysis and NGS..

【Product introduction】

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..

【Compositions】

Cat.No	IVD5432-TL-06A	IVD5432-TL-06B	IVD5432-TL-06C
Sample amount	300~350μl	600~700μl	900~1050μl
Carrier RNA	310 μg	310 μg	310 μg
Protease K	50 mg	100 mg	150 mg
Protease Dissolve Buffer	6 ml	6 ml	10 ml
Elution Buffer	15 ml	15 ml	15 ml
DA-Tip	12	12	12
Row 1/7	600μl Buffer MLK	600μl Buffer MLK	600μl Buffer MLK
Row 2/8	/	600μl Buffer MLK	600μl Buffer MLK
Row 3/9	600μl Buffer MAW1	600μl Buffer MAW1	600μl Buffer MLK
Row 4/10	20μl Buffer MPG2 600μl Buffer MW2	20μl Buffer MPG2 600μl Buffer MW2	30μl Buffer MPG2 900μl Buffer MAW1
Row 5/11	600μl Buffer MW2	600μl Buffer MW2	900μl Buffer MW2
Row 6/12	/	/	/

【Storage conditions and validity】

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

【Preparation before Use】

- Dissolve protease K: Add 2.5ml/5ml/7.5mL Protease Dissolve Buffer as shown on the label, invert several times, and store at -20~8℃.
- Dissolve Carrier RNA: Add 310μl Elution Buffer, vortex to mix for 10-15 seconds, stored at -20℃.
- Optional: Carrier RNA is beneficial for improving the recovery rate of trace amounts of DNA, add 5μl Carrier RNA per 1ml Protease K, invert and mix well.

【Protocol 1: Extraction of cfDNA from 300μl Samples, Operation of 32/48 channel nucleic acid extractor】

1. Take out the required components of the kit, remove the sealing bag and sealing film.
2. Add 40~50μl Elution Buffer into the wells of Row 6/12.
3. Add 20μl Protease K or Protease K/Carrier RNA into the wells of Row 1/7. Then Add 300~350μl samples.
4. Insert the magnetic Tip into the corresponding position of the instrument.
5. Place the plate into the corresponding position of the instrument.
6. Start the corresponding program IVD5432-TL-06A.
7. Finish the operation after ~30 minutes.
8. Remove the 96-well plate and magnetic Tip.
9. Transfer the DNA to a 1.5ml centrifuge tube and store the product at -20~8℃.

Num	Name	Well	Volume μl	Mix		Wait		Magnet			Magnet	Heat	
				Time	Speed	Time	Position	Up/ Down	Surface	Bottom		Plate	Temp.
1	Magnet	4	600	0.3min	8	0	0	60s	0	0	Auto	/	
2	Bind	1	950	10min	7	0	0	120s	50	50	Auto	1	
3	Wash1	3	600	1min	8	0	0	90s	0	0	Auto	/	/
4	Wash2	4	600	1min	8	0	0	60s	0	0	Auto	/	/
5	Wash3	5	600	1min	8	0	0	60s	0	0	Auto	/	/
6	Dry	5	500	0	0	6	Dry	0	0	0	Auto	/	/
7	Elute	6	100	5min	8	0	0	60s	0	40	Auto	/	/
8	Remove	4	500	0.5min	9	0	0	0	0	0	Auto	/	/

【Protocol 2: Extraction of cfDNA from 600~700µl Samples, Operation of 32/48 channel nucleic acid extractor】

1. Take out the required components of the kit, remove the sealing bag and sealing film.
2. Add 50µl Elution Buffer into the wells of Row 6/12.
3. Add 20µl Protease K or Protease K/Carrier RNA into the wells of Row 1/7 and Row 2/8.
4. Divide the sample into two parts, add 300~350µl samples into the wells of Row 1/7 and Row 2/8.
5. Insert the magnetic Tip into the corresponding position of the instrument.
6. Place the plate into the corresponding position of the instrument.
7. Start the corresponding program IVD5432-TL-06B.
8. Finish the operation after ~45 minutes.
9. Remove the 96-well plate and magnetic Tip.
10. Transfer the DNA to a 1.5ml centrifuge tube and store the product at -20~8℃.

Num	Name	Well	Volume µl	Mix		Wait		Magnet			Magnet		
				Time	Speed	Time	Position	Up/ Down	Surface	Bottom	Auto	Plate	Temp.
1	Magnet	4	600	0.3min	8	0	0	60s	0	0	Auto	/	
2	Digest1	1	950	1min	8	0	0	0	0	0	Auto	/	
3	Digest2	2	950	2min	8	0	0	0	0	0	Auto	/	/
4	Bind1	1	950	8min	8	0	0	120s	50	50	Auto	/	/
5	Bind2	2	950	6min	8	0	0	120s	50	50	Auto	/	/
6	Wash1	3	600	2min	8	0	0	90s	0	0	Auto	/	/
7	Wash2	4	600	1min	8	0	0	60s	0	0	Auto	/	/
8	Wash3	5	600	1min	8	0	0	60s	0	0	Auto	/	/
9	Dry	5	500	0	0	6	Dry	0	0	0	Auto	/	/
10	Elute	6	100	5min	8	0	0	60s	0	40	Auto	/	/
11	Remove	4	500	0.5min	9	0	0	0	0	0	Auto	/	/

【Protocol 3: Extraction of cfDNA from 900~1050µl Samples, Operation of 32/48 channel nucleic acid extractor】

1. Take out the required components of the kit, remove the sealing bag and sealing film.
2. Add 60µl Elution Buffer into the wells of Row 6/12.

3. Add 20µl Protease K or Protease K/Carrier RNA into the wells of Row 1/7, Row 2/8 and Row 3/9.
4. Divide the sample into three parts, add 300~350µl samples into the wells of Row 1/7, Row 2/8 and Row 3/9.
5. Insert the magnetic Tip into the corresponding position of the instrument.
6. Place the plate into the corresponding position of the instrument.
7. Start the corresponding program IVD5432-TL-06C.
8. Finish the operation after ~60 minutes.
9. Remove the 96-well plate and magnetic Tip.
10. Transfer the DNA to a 1.5ml centrifuge tube and store the product at -20~8℃.

Num	Name	Well	Volume µl	Mix		Wait		Magnet			Magnet		
				Time	Speed	Time	Position	Up/ Down	Surface	Bottom	Auto	Plate	Temp.
1	Magnet	5	900	0.3min	8	0	0	60s	0	0	Auto	/	
2	Digest1	1	950	1min	8	0	0	0	0	0	Auto	/	
3	Digest2	2	950	2min	8	0	0	0	0	0	Auto	/	/
4	Digest3	3	950	2min	8	0	0	0	0	0	Auto	/	/
5	Bind1	1	950	8min	8	0	0	120s	50	50	Auto	/	/
6	Bind2	2	950	6min	8	0	0	120s	50	50	Auto	/	/
7	Bind3	3	950	6min	8	0	0	120s	50	50	Auto	/	/
8	Wash1	4	900	2min	8	0	0	90s	0	0	Auto	/	/
9	Wash2	5	900	2min	8	0	0	60s	0	0	Auto	/	/
10	Dry	6	500	0	0	10	Dry	0	0	0	Auto	/	/
11	Elute	6	100	5min	8	0	0	60s	0	40	Auto	/	/
12	Remove	4	500	0.5min	9	0	0	0	0	0	Auto	/	/

【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