

MGI Low Throughput Automated Solution

cfDNA Sample Preparation

Introduction

MGIEasy Cell-free DNA Library Prep Set is for the preparation of cfDNA library tailored for MGI high-throughput sequencing platform, which can be widely used in the research of cfDNA. MGIEasy Cell-free DNA Library Prep Set can be used for cfDNA or fragmented DNA with the size of 150bp-250bp.

Comprehensive functions

Integrated design comprising functional modules including PCR preset protocols, temperature control, etc. covering the whole testing process.

Cost effectivity

Short time to set up the library, batched sample processing, suitable for small to medium laboratories.

Professional and minimal contamination

Including a laminar flow hood which eliminates external contaminants to maximize accurate results.

Flexible platform

Allows customized workflow development; high expandability.



Automated Sample Preparation System

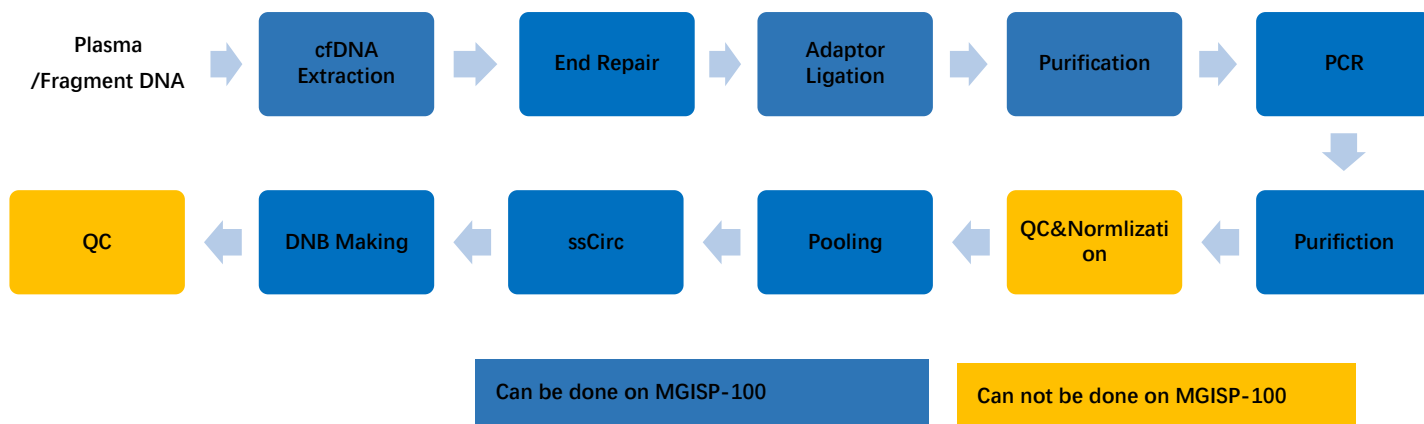
—Designed for Next Generation Sequencing Applications

MGISP-100 is an automated system focused on the field of sample preparation for the next generation sequencing. The automatic process can be edited for different needs. MGISP-100 can save a great deal of effort, improve the stability of the preparation of NGS library, reduce the cost. Currently, it has been operated stably for MGI sequencer's library preparation.

The throughput for [MGIEasy Cell-free DNA Library Prep Set] based on MGISP-100 is 16 rxn /run. MGISP-100 can do End Repair, Adaptor Ligation, PCR Amplification, Purification, ssCirc, and DNB Preparation and more.

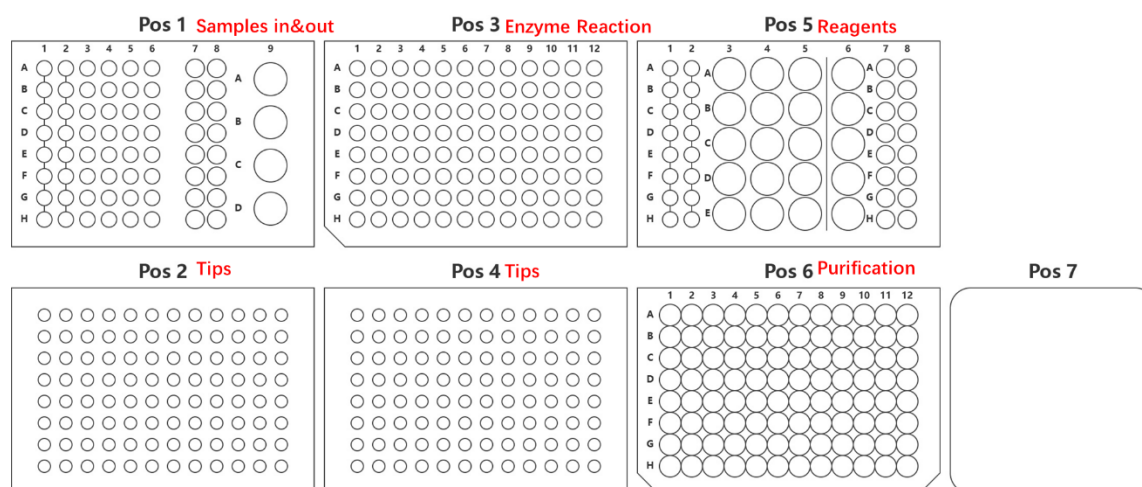
cfDNA Sample Preparation Automated Solution

Workflow on MGISP-100



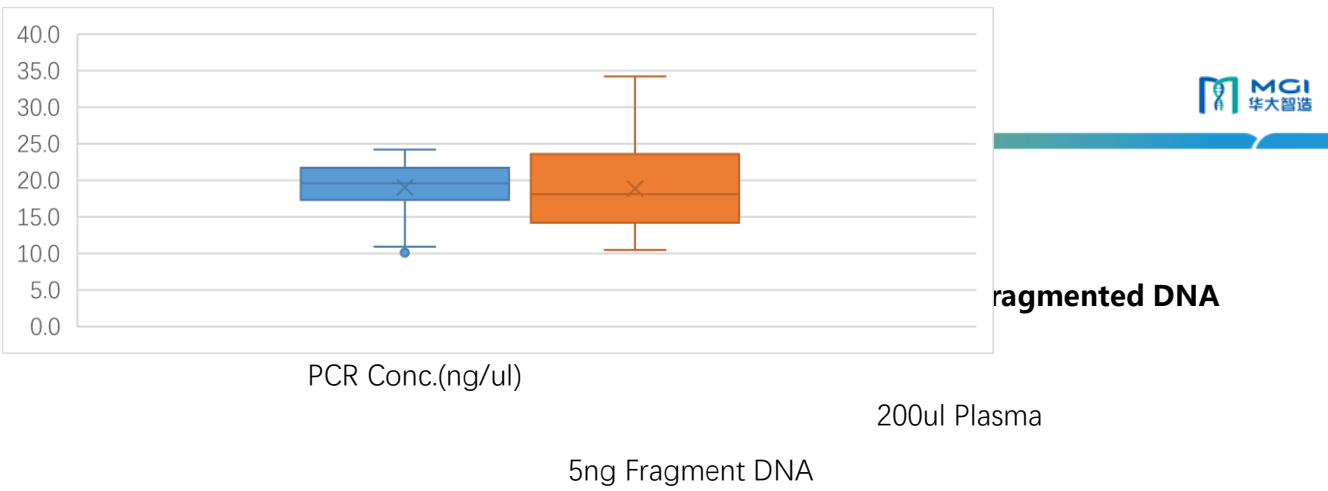
* If input is fragmented DNA, workflow is started from End Repair.

MGISP-100 Board Layout



Two steps on MGISP-100 for cfDNA sample preparation

MGISP-100 Running Time	plasma/cfDNA → PCR:	≤4h
	PCR → DNB:	≤2h
Throughput per Run	16 samples	
Application	NIFTY, Microbial Detection	
Matching Kit	[MGIEasy Cell-free DNA Library Prep Set]	

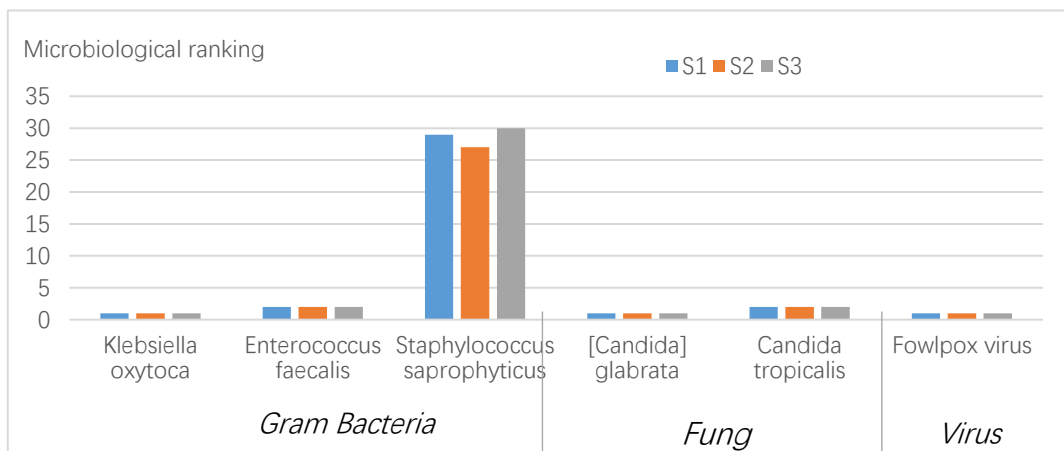


Highly accurate detection of chromosomal abnormalities for NIFTY Samples

Sample Type	Negative Plasma	T21 Plasma	T18 Plasma	T13 Plasma	Negative Control	Positive Control
Test numbers	191	3	3	3	12	12
Correct Detection	191	3	3	3	12	12
Success Rate	100%	100%	100%	100%	100%	100%

Accurate and Stable Microbial Identification

6 different microbials were added to the negative plasma, and construct the libraries 3 times on MGISP-100. The results of 3 tests were identical, and all 6 microorganisms were detected correctly.



MGISP-100 Ordering Information

Model	Item NO.
MGISP-100	900-000027-00
MGISP-100RS	900-000070-00
MGISP-100CX	900-000052-00
MGISP-100RX	900-000051-00

Consumables Ordering Information

Product Name	Brand	Specification	Unit	Item NO.
0.5ml SC Micro Tube PCR-PT	MGI	100 ea./bag	bag	1000001558
Break-Away 96-Wells, clear tubes, purple frame	MGI	10 pieces/box	box	1000004341
Strips of 8 flat optical caps	MGI	12 ea./bag	bag	1000004191
Microseal 'P' Replacement Pads	MGI	10 pieces/bag	bag	1000002039
250ul Automated Tips, Filter, sterile, Low adsorption	MGI	10 boxes/case	case	1000008530
1.3ml U-bottom Deepwell Plate	MGI	2 pieces/bag	bag	1000004644
Hard-Shell Thin-Wall 96-Well Skirted PCR Plates, white shell/clear well	MGI	10pieces/bag	bag	1000000675
2ml SC Micro Tube PCR-PT	MGI	100 ea./bag	bag	1000001553

Kit Ordering Information

Product Name	Specification	Item NO.
MGIEasy Cell-free DNA Library Prep Set	16RXN	1000007037
BGISEQ-500RS High-Throughput Sequencing Set	SE50/PE50/PE100	1000002072/1000005475/1000005478
MGISEQ-2000RS High-Throughput Sequencing Set	SE50/PE100/PE150	1000003703/1000002873/1000003981
MGISEQ-200RS High-Throughput Sequencing Set	SE50/PE50/PE100	1000004635/1000005228/1000005229

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