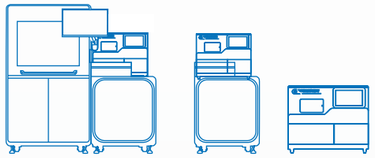
New Sequencing Paradigm, ALL-IN-FLP

MGIFLP-L50

Modular Sequencing Workstation



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MGIFLP-L50

Modular Sequencing Workstation

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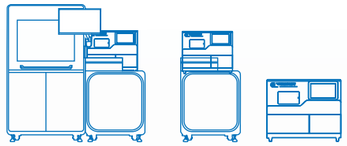
“3-IN-ONE”

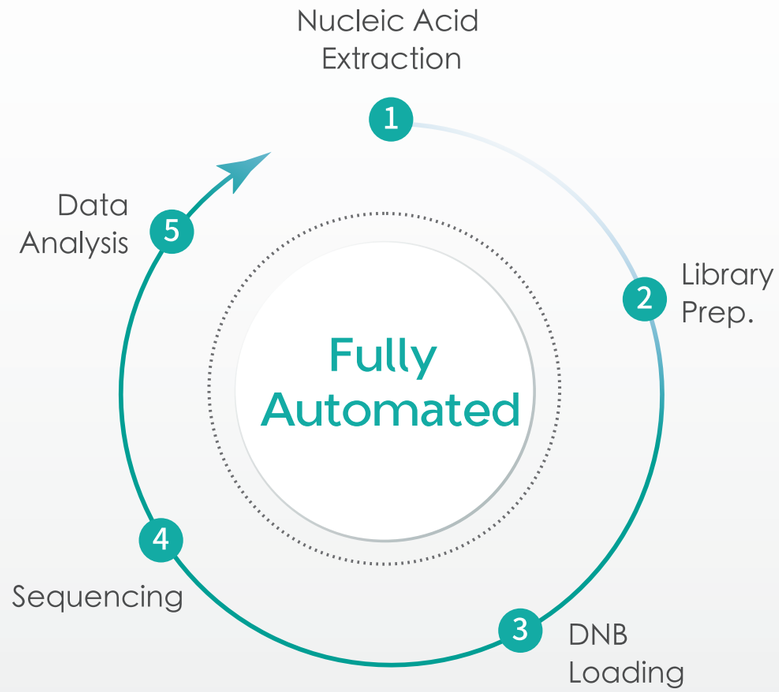
Integrated Sequencing Mode



MGIFLP-L50 is a modular sequencing workstation independently developed by MGI. It focuses on creating a new sequencing model by integrating extraction, library preparation, sequencing, and data analysis into just one machine. MGIFLP-L50 provides a new standard lab automation for researchers.

<24 Hours per experiment

4~32 Samples per Run



Microbiology Research

- Human gut microbial research
- TB Sequencing
- Food Safety Evaluation
- Monkeypox Sequencing
- Identification of vector species and microorganisms

Other Research

- Individual Identification
- Individual Identification (SNP)
- Agricultural Breeding
- Customizable applications

*For Research Use Only. Not for use in diagnostic procedures.

Localization

Empower Localized Experiments

3 Labs → 1 Lab

MGIFLP-L50 minimizes the footprint of the instrument, consolidating the traditional 3 laboratory spaces into a modular sequencing workstation occupying less than 2 m^2.

Intelligent Experiment

- Sample Barcode Scanning;
- Life-cycle Sample Tracing;
- Life-cycle Result Tracing;
- Intelligent Device Monitoring;
- Experimental Process Monitoring.

Pre-defined Workflow

MGIFLP-L50 has the pre-defined workflow, providing new-standard operation-simplicity to conduct sequencing experiments.

Disinfection System

- HEPA system: 99.995% at 0.3 μm
- UV system: Higher than 100000 uW.s/cm^2

Solving the Challenge of Building a Sequencing Lab

High Equipment Requirement

10+ pieces of equipment and **150+** pipetting are required.

High Experiment Requirement

3 strictly separated rooms with air **flowing in a fixed direction** are required.

High Staff Requirement

Well-experienced and systematically-trained staff is required.

Automation

With 3 Key Functional Modules

Module 1 Sample Preparation Module

MGIFLP-L50 is compatible with a variety of sample types and automates the entire process from nucleic extraction to sequencing and bioinformation analysis.

- On-board Tubes: supports 5 mL, 10 mL blood collection tubes, 1.5 mL, 2 mL centrifuge tubes, deep-well plates, PCR plates.
- Sample Type: plasma, full-blood, cerebrospinal fluid, swab preservation fluid, saliva, nucleic acid.
- Functional Component: QC, PCR, Magnetic Module, Temp.Control, Temp.Control & Shaker Module.

Module 2 Sequencing Module*

The sequencing module of MGIFLP-L50 provides two types of the flow cell, FCS and FCL, to satisfy diverse sequencing requirements.

Flow Cell Type	Effective Reads*	Read Length	Data Output	Run Time**	Q30**
FCS	100 M	SE100	~10 Gb	~10 h	> 80%
	100 M	PE100	~20 Gb	~20 h	> 85%
	100 M	PE150	~30 Gb	~28 h	> 80%
FCL	500 M	SE50	~25 Gb	~9 h	> 85%
	500 M	PE50	~50 Gb	~15 h	> 85%
	500 M	SE100	~50 Gb	~13 h	> 85%
	500 M	PE100	~100 Gb	~26 h	> 85%
	500 M	PE150	~150 Gb	~40 h	> 80%

Module 3 BIT Module (Opitional)

The BIT module of MGIFLP-L50 integrates an automated data-processing pipeline for identifying the microbial nucleotide sequence in the original sample. The BIT module can also automatically generate identification results that could provide a reference for accurately detecting pathogenic microorganisms.

Classification	Species	Subspecies
Viruses	8900+	3000+
Fungi	9400+	300+
Bacteria	8000+	19000+
Archaea	300+	200+
Protozoa +Parasite	600+	50+

*Unless otherwise informed, this StandardMPS sequencing reagent is not available in Germany, UK, Sweden, and Switzerland.

Information Guide

More about MGIFLP-L50

Product Information

Hardware Parameters

Indicator		Parameter
Dimensions		851.5 mm (L)*1840 mm (W)*1821 mm (H)
Performance	Throughput	4-32 Samples/run
	Sample type	Plasma, full-blood, cerebrospinal fluid, swab preservation fluid, saliva, nucleic acid, etc.
	Read length	SE50、SE100、PE50、PE100、PE150
Disinfection System	HEPA system	99.995% at 0.3 μm
	UV system	Higher than 100000 uW.s/cm^2
Power Requirements	Voltage	200-240 V, ~50/60 Hz
	Rated power consumption	3000 VA
Working Environment	Temperature	19 ℃~25 ℃
	Humidity	20 %RH~70 %RH, No condensation
	Air pressure	70-106 kPa

Ordering Information

Item NO.	Name	Intended Market
900-000788-00	MGIFLP-L50RS Modular Sequencing Workstation	CE-RUO
900-000633-00	MGIFLP-LRS Automatic Sample Preparation System	CE-RUO

MGI Global Presence

Local technical support and Customer Experience Centers (CECs) have been established in multiple countries and regions worldwide to ensure timely and effective technical support and training.

Local warehouses and spare part centers have been established in multiple countries and regions worldwide to ensure the continuous availability of machine parts for maintenance.

Online technical support is available globally with a fully functional call center (Toll-Free Hotline 4000-688-114) accessible during workdays from 9:00 AM-12:00 PM and 13:00 PM-18:00 PM (Beijing time, GMT+8).

Providing installation services and system verification services as needed to ensure smooth implementation and operation. The value-added services are available for personalized services such as secondary relocation.

Responsible for any failure caused by non-human factors and non-force majeure factors within the warranty.

Providing instrument preventive maintenance services within the warranty period, along with a host of available extended warranty support plans to ensure optimal performance and reliability.

About
MGI Tech Co., Ltd.

2,800+
Employees

35.2%
R&D Personnel

2,400+
Customers

90+
Countries & Regions

MGI Tech Co., Ltd. (referred to as MGI) is committed to building core tools and technology to lead life science through intelligent innovation. With a focus on R&D, production and sales of DNA sequencing instruments, reagents, and related products, MGI provides real-time, panoramic, and life course equipment and systems for precision medicine, precision agriculture, precision healthcare and other relevant industries. MGI is a leading producer of clinical high-throughput gene sequencers, and its multi-omics platforms include genetic sequencing, medical imaging, and laboratory automation.

As of June 30, 2023, MGI has more than 2,800 employees, and 35.2% of whom are R&D personnel. Founded in 2016, MGI operates in more than 90 countries and regions, serving more than 2,400 customers. It has established scientific research and production bases, global training and service network in many countries and regions around the world. MGI is one of the few companies in the world that can independently develop and mass-produce low-, medium- and high-throughput clinical gene sequencers from GB to TB. Providing real-time, comprehensive, life course solutions, its vision is to lead life science innovation.

Vision

Leading Life Science Innovation

Mission

To Develop and Promote Advanced Life Science Tools for Future Healthcare