



Automation Package

Massive Parallel Sequencing Library Preparation



MGISP-960

High-throughput Automated Sample
Preparation System

Various integrated functions and preset automated processes

Applicable reagent kits



Vazyme

DNA Library Preparation /02

RNA Library Preparation /05

Agilent Technology

WES Library Preparation /06

Paragon Genomics

Multi-PCR Library Preparation /07

DNA Library Preparation

Your exclusive sample preparation workstation

MGISP-960



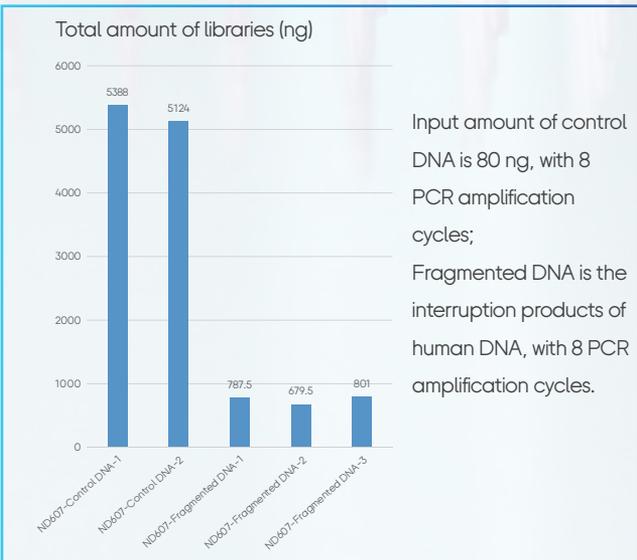
	MGISP-960	Manual Operation
Library Prep Duration	3.7 h/run	About 5 h/run
Duration Details	0.2 h (Manual) + 3.5 h (Auto)	All Manual
Throughput	96 samples/run, 1 MGISP-960	≤16 samples/run, 1 Person
Stability	High	Depends on the operator's proficiency and other factors

Recommended configurations | Cat. No.: 900-000107-00

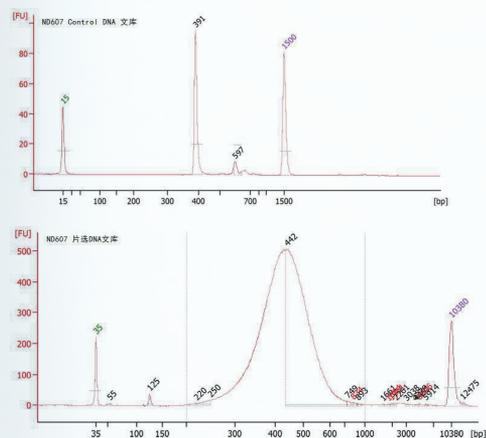
- MGISP-960
- 1 Shaker
- 1 Temperature Control Module
- 1 PCR
- 1 Magnetic Frame
- 1 Higher Position
- 1 Lower Position

Vazyme VAHTS Universal DNA Library Prep Kit for Illumina V3

Performance



Automated testing is performed using control DNA and human DNA. The results show that qualified and stable libraries and fragments can be obtained by using MGISP-960.



Highly efficient and flexible automated library preparation

Fragmented DNA

3.7 h

Library QC

Fragment Selection is optional.

	MGISP-960	Manual Operation
Library Prep Duration	3.7 h/run	About 5 h/run
Duration Details	0.2 h (Manual) + 3.5 h (Auto)	All Manual
Throughput	12-96 samples/run, 1 MGISP-960	≤16 samples/run, 1 person
Stability	High	Depends on the operator's proficiency and other factors

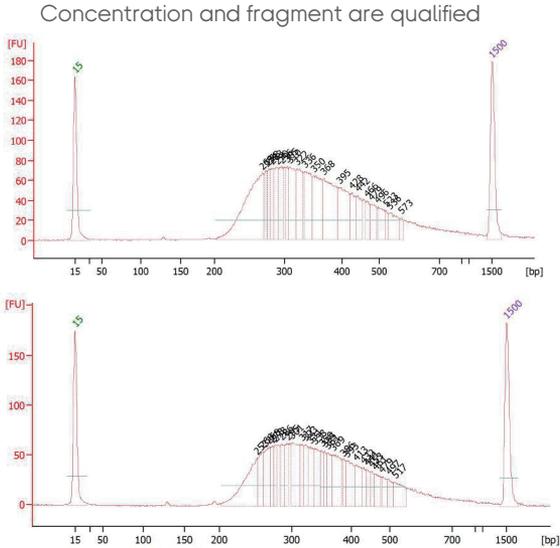
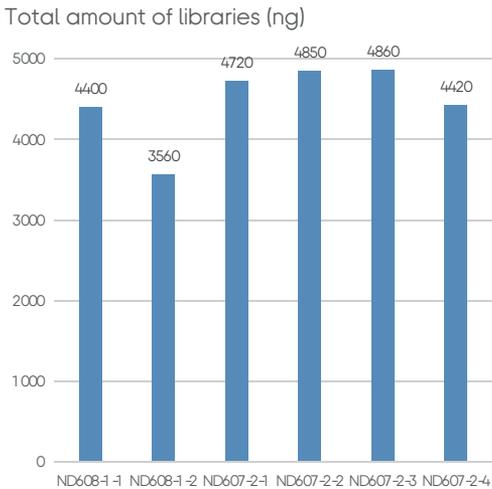
Recommended configurations | Cat. No.: 900-000107-00

- MGISP-960
- 1 Shaker
- 1 Temperature Control Module
- 1 PCR
- 1 Magnetic Frame
- 1 Higher Position
- 1 Lower Position

VAHTS Universal Pro DNA Library Prep Kit for Illumina

Performance

Automated testing is performed using human DNA and the test is repeated 4 times. Twice of the test is repeated in batch. The results show that qualified and stable libraries can be obtained by using MGISP-960.



Fully automated DNA library preparation

	MGISP-960	Manual Operation
Library Prep Duration	2.7 h/run	About 3.5 h/run
Duration Details	0.2 h (Manual) + 2.5 h (Auto)	All Manual
Throughput	12-96 samples/run, 1 MGISP-960	≤16 samples/run, 1 person
Stability	High	Depends on the operator's proficiency and other factors

Recommended configurations | Cat. No.: 900-000107-00

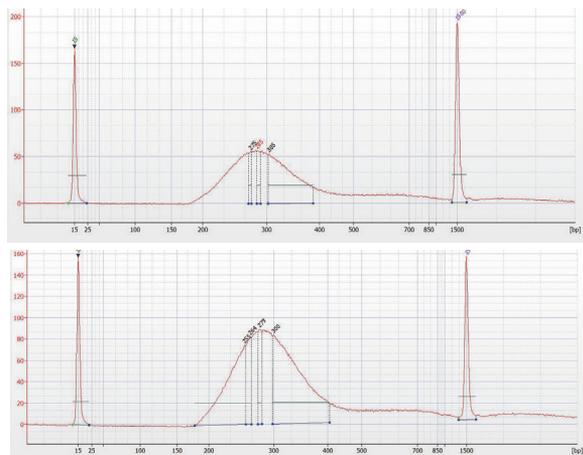
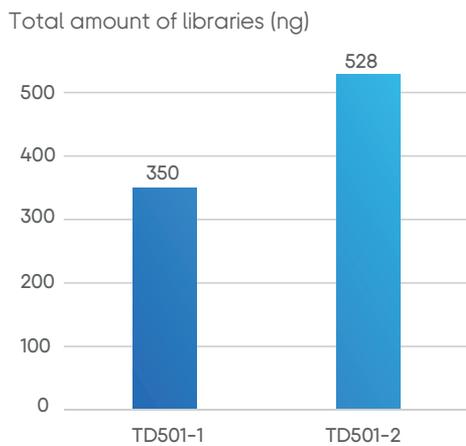
- MGISP-960 1 Shaker 1 Temperature Control Module
- 1 PCR 1 Magnetic Frame 1 Higher Position
- 1 Lower Position

Vazyme TruePrep DNA Library Prep Kit V2 for Illumina

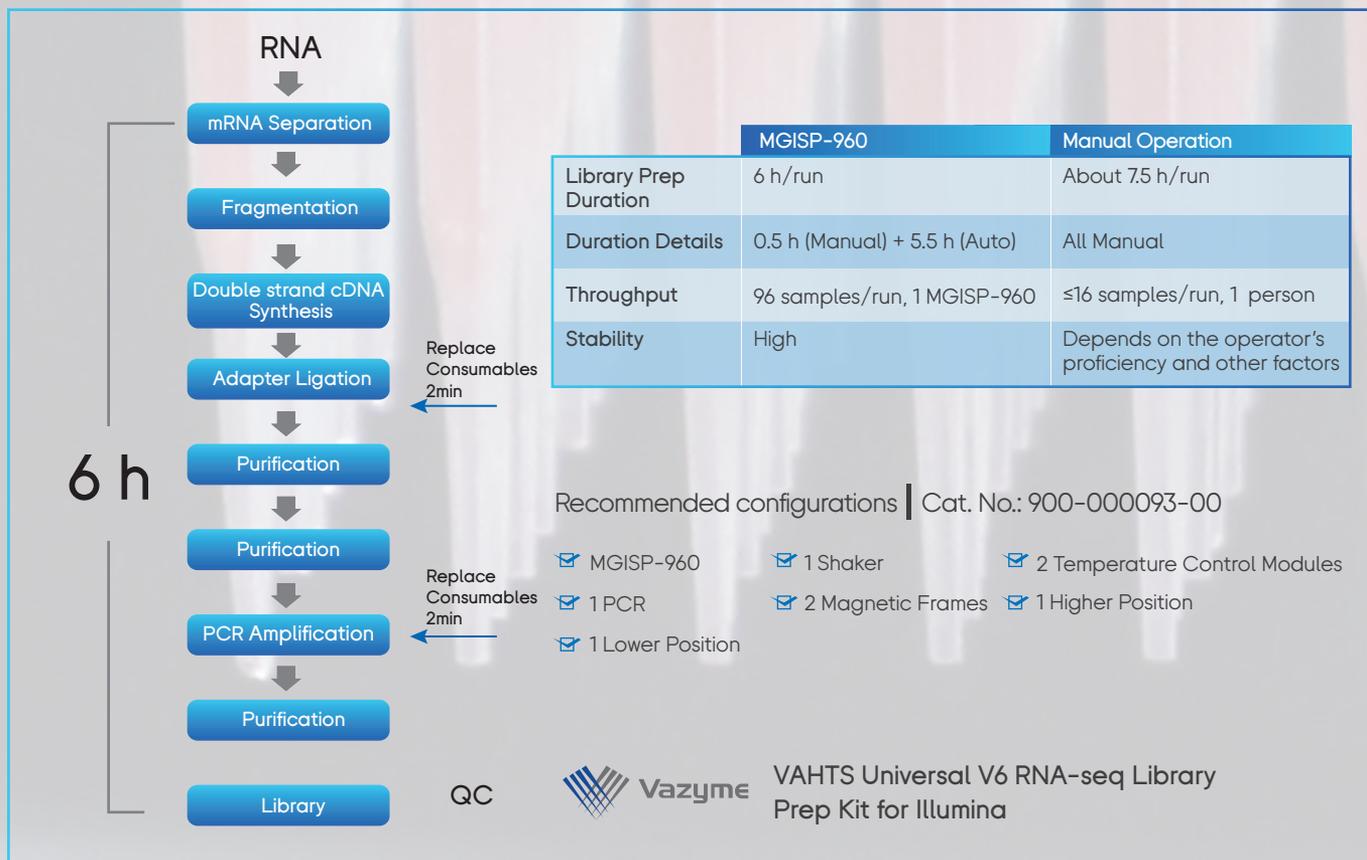
Performance

Automated testing is performed using human DNA and the test is repeated 2 times; with the input amount of 50 ng, in 9 PCR amplification cycles.

Concentration and fragment are qualified



Automated RNA library preparation

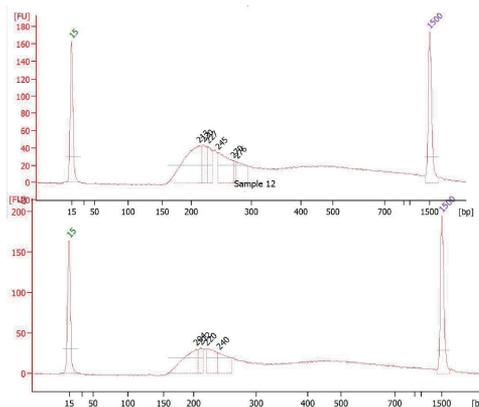
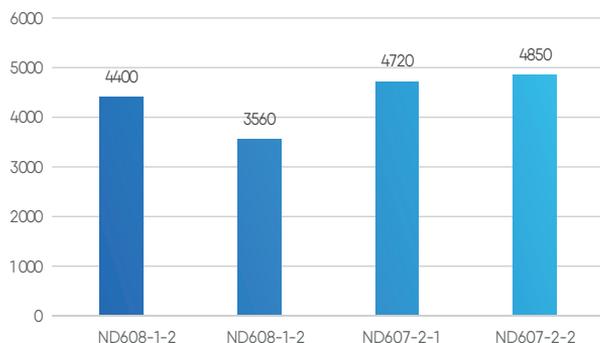


Performance

Human total RNA (260/280=1.79, 260/230=2.34) are used for automated test, with 4 repeated tests, input amount of 1 µg, and 15 PCR amplification cycles.

Concentration of library prep and fragment are qualified and stable

Total amount of libraries (ng)



Automated hybrid capture (8x speedup)

	MGISP-960 (Library preparation + capture)	Manual Operation (Library preparation + capture)
Library Prep Duration	5.5 h/run (library) + 4 h/run (capture)	6.5 h/run + 5 h/run
Duration Details	8.5 h (Auto) + 1 h (Manual)	All Manual
Throughput	96 samples/run, 1 MGISP-960	12 samples/run, 1 person
Stability	High success rate & stability	Depends on the operator's proficiency and other factors

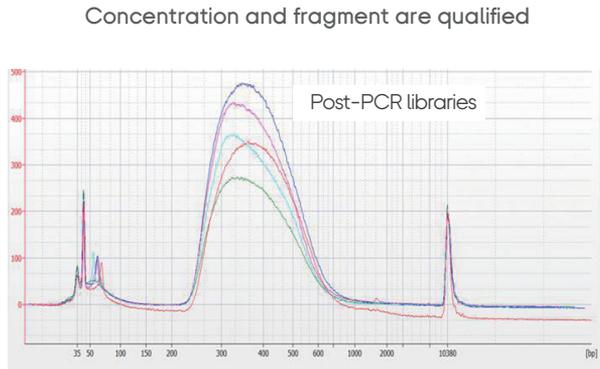
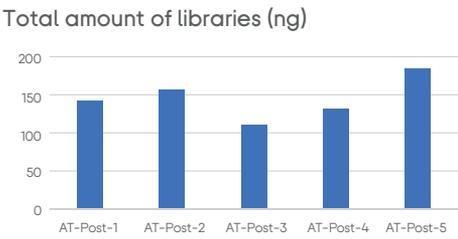
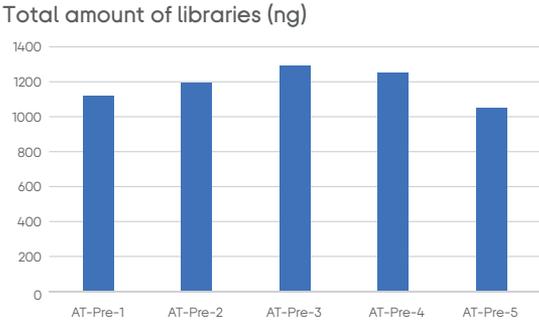
Recommended configurations | Cat. No.: 900-000093-00

- MGISP-960
- 2 Magnetic Frames
- 1 PCR
- 2 Temperature Control Modules
- 1 Shaker
- 1 Higher Position
- 1 Lower Position

Agilent Technology Sureselect XT kit for Illumina

Performance

Human gDNA is used for automated test, with 5 repeated tests of library preparation. Pre-PCR and Post-PCR libraries are qualified and stable.



Automated tumor detection

	MGISP-960 & MGISP-100	Manual Operation
Library Prep Duration	About 6 h/run	10 h/run
Duration Details	0.5 h (Manual) + 5.5 h (Auto)	All Manual
Throughput	96 samples/run, 1 MGISP-960 + 1 MGISP-100	12 samples/run, 1 operator
Stability	High	Depends on the operator's proficiency and other factors

Recommended configurations | Cat. No.: 900-000107-00

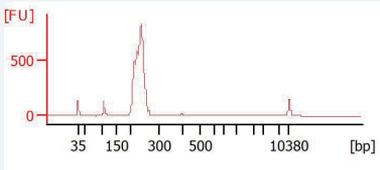
- MGISP-960
- 1 Shaker
- 1 Temperature Control Module
- 1 PCR
- 1 Magnetic Frame
- 1 Lower Position
- 1 Higher Position

QC → CleanPlex for MGI OncoZoom Cancer Hotspot Panel

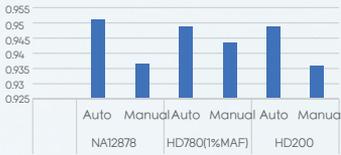
Performance

Three types of standards are used for automated test. The library preparation products for the samples are stable and qualified in concentration. The sequencing results show that capture efficiency of MGISP-960 surpasses that of manual operation, and the mutation rate test results of MGISP-960 and manual operation are consistent and qualified.

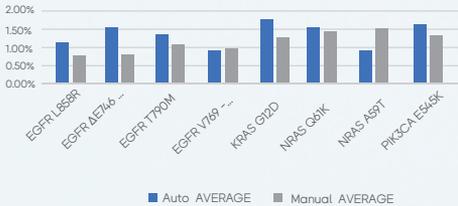
Total amount of libraries (ng)



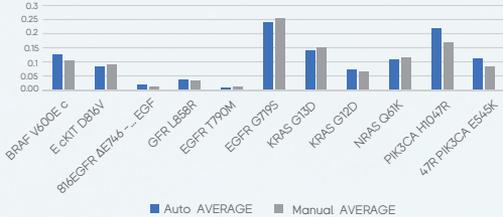
Capture_Rate



HD780(1% MAF) (cfDNA)



HD200 Standard (FFPE)



System specifications

Throughput	96 samples per run		
Sample Type	Plasma, saliva, FFPE, gDNA, WGA products, etc.		
Pipette Range	2 μ L to 200 μ L		
Pipette Accuracy	Volume	2 μ L	200 μ L
	CV	< 5%	< 1%
	Accuracy	< \pm 10%	< \pm 1%
Robotic Arm Positioning Accuracy	\pm 0.1 mm		
Temperature Range	PCR	4 $^{\circ}$ C to 99 $^{\circ}$ C	
	Temperature Control Module	4 $^{\circ}$ C to 90 $^{\circ}$ C	
Temperature Accuracy	PCR	\pm 0.3 $^{\circ}$ C at 55 $^{\circ}$ C	
	Temperature Control Module	\pm 1 $^{\circ}$ C at 55 $^{\circ}$ C	
Temperature Uniformity	PCR	\pm 0.2 $^{\circ}$ C at 72 $^{\circ}$ C	
	Temperature Control Module	\pm 1 $^{\circ}$ C at 72 $^{\circ}$ C	
Working Environments	Temperature	19 $^{\circ}$ C to 25 $^{\circ}$ C	
	Relative Humidity	20% RH to 80% RH, non-condensing	
	Atmospheric Pressure	80 kPa to 106 kPa	
	Maximum Altitude	2000 m	
Power Requirements	Power Type	200 V to 240 V~, 50/60 Hz	
	Rated Power Consumption	Less than 2000 VA (for standard configuration)	
Net Weight	250 kg		
Dimensions	1240 mm \times 740 mm \times 1110 mm		

Ordering information

Model	Target market
MGISP-960	China & overseas IVD**
MGISP-960RS	China & overseas RUO

- Standard configuration includes: PCR, magnetic rack, vortex mixer, and temperature control model. We can customize the configurations depending on your needs. Before you place an order, please contact local sales representative.
- **China IVD models are not available for ordering currently.

Technical Support & After-sales Service

Global technical support network to provide customers with efficient and high-quality after-sales service of the manufacturer:

- One-stop service includes device installation, maintenance, repair, training, and compliance verification;
- Fast and on-demand script development seamlessly transforms your existing workflow to an automated platform;
- Exemption of labor, parts, and travel expenses for failures caused by quality or design during the warranty period;
- Various extended warranty products to match your needs and budget, to maximize your instrument output.



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