

MGI High Throughput Automated Package WES Sample Preparation

Introduction

MGIEasy Exome Capture V4 Universal Set is the first exome capture kit designed based on Chinese genetic background. The probe is designed on CCDS、GENCODE、RefSeq、miRBase. As a universal exome capture kit, it is compatible with MGISEQ/BGISEQ as well as other NGS platforms.

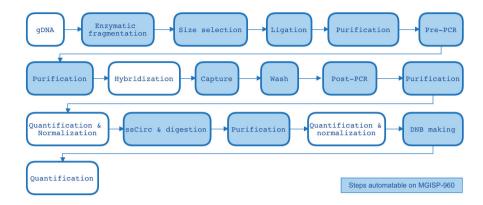


MGISP-960 is a high throughput automated sample preparation system. Most steps of NGS library preparation can be automated on MGISP-960. The protocols can be edited for different needs. MGISP-960 can save a great deal of effort and error by automating repetitive actions. MGISP-960 has been operating stably for MGI Sequencer's library preparation.

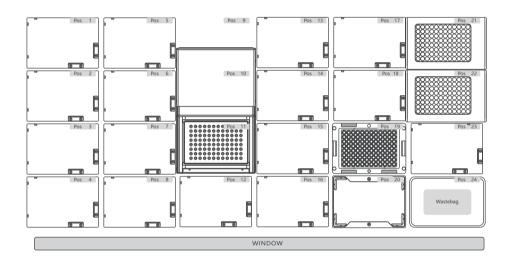
The Throughput for [MGIEasy Exome Capture V4 Universal Set] based on MGISP-960 can be set 8-96rxn/run as needed. MGISP-960 can do Pre-PCR library preparation, hybridization, capture, Post-PCR library preparation, ssCirc & Digestion, DNB making, and more.

■ WES Sample Preparation Automated Workflow

Workflow on MGISP-960



MGISP-960 Board Layout



Pos11: PCR Pos19: Magnetic Beads Purification Module Pos20: Shaker Pos21, 22: Temperature Control Module

Four Steps in WES Sample Preparation

MGISP-960 Running Time	gDNA \rightarrow Pre-PCR: Hybridization \rightarrow Post-PCR: Post-PCR \rightarrow ssDNA Circle: ssDNA Circle \rightarrow DNB:	≤ 4 h ≤ 4 h ≤ 2 h ≤ 40 min
Throughput per Run	8 - 96 samples	
Matching kit	[MGIEasy Exome V4 FS Library Prep set]	

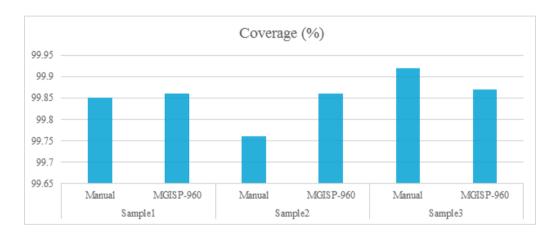


■ MGISP-960 Data Performance

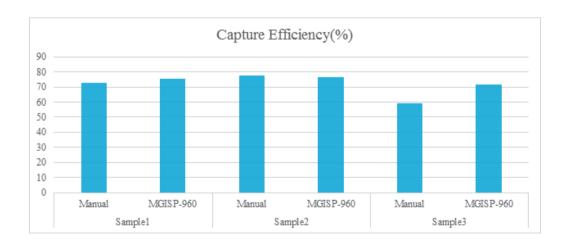
More Stable Sequencing Results

Sample No.	Condition	Q20	Q30	Average Depth	Depth>=10(%)	allSNP
1	Manual	97.21	89.18	112.12	98.86	160097: right
	MGISP-960	97.08	88.6	169.62	99.22	
2	Manual	97.63	89.69	117.67	98.4	159114: right
	MGISP-960	97.1	88.69	178.31	99.02	
3	Manual	96.7	88.61	133.46	99.2	156780: right
	MGISP-960	97.06	88.55	130.46	98.98	

More Stable Coverage than Manual



More stable and higher capture efficiency than Manual



MGISP-960 Ordering Information

Configurations PCR Module x1, Magnetic Beads Purification Module x1, MGISP-960RS 900-000123-00 Shaker x1, Temperature Control Module x2

Consumables Ordering Information

Product Name	Brand	Specification	Unit	Item No.
Microseal 'P' Replacement Pads	MGI	10 pieces/bag	Bag	1000004981
250ul Automated Tips, Filter, sterile, Low adsorption	MGI	10 boxes/Case	Case	1000005520
1.3ml U-bottom Deepwell Plate	MGI	2 pieces/Case	Case	1000005530
Hard-Shell Thin-Wall 96-Well Skirted PCR Plates, white shell/clear well	MGI	10 pieces/Bag	Bag	1000004991

Kit Ordering Information

Product Name	Specification	Item No.
MGIEasy Exome Capture V4 Universal Kit	16 RXN	1000007745
MGIEasy Exome Capture Accessory Kit	16 RXN	1000007743
MGIEasy FS DNA Library Prep Set	16 RXN	1000006987
BGISEQ-500RS High-throughput Sequencing Set *	PE100	1000005478
MGISEQ-2000RS High-throughput Sequencing Set *	PE100/PE150	1000002873/1000003981
MGISEQ-200RS High-throughput Sequencing Set *	PE100	1000005229
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For Research Use Only. Not for use in diagnostic procedures.

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