

Targeted Sequencing Library Preparation

CleanPlex[®] for MGI Ready-to-Use NGS Panels

Validated targeted sequencing NGS panels for fast and accurate disease profiling

Highlights

- **Relevant Gene Content** Expertly curated using the latest scientific findings
- Versatile Protocol • Compatible with MGISEQ™ NGS platforms
- Fast, Streamlined Workflow . Generate sequencing-ready libraries in just 3 hours using a simple, three-step protocol
- Sensitive Detection Detect somatic mutations down to 1% frequency using just 10 ng of input DNA.
- Superb Performance Prepare high-quality NGS libraries with excellent on-target performance using CleanPlex® Technology to enable efficient use of sequencing reads and reduce costs

The CleanPlex[®] for MGI Ready-to-Use NGS Panels are multiplex PCR-based targeted resequencing assays designed for rapid variant analysis. Starting with just 10 ng of DNA, sequencing-ready libraries can be prepared using a streamlined workflow in just 3 hours. The panels are designed and optimized using advanced proprietary algorithm to deliver data with high on-target performance and high coverage uniformity to ensure efficient use of sequencing reads.

CleanPlex Streamlined Targeted Sequencing Workflow

CleanPlex for MGI Ready-to-Use NGS Panels offer a simple and streamlined workflow. Starting from purified and quantitated DNA, the multiplex PCR-based protocol can be completed in just 3 hours, with 75 minutes of hands-on time, using a three-step workflow with minimal tube-to-tube transfers. Each step consists of a thermal cycling or incubation condition, followed by "with bead" purification using magnetic beads.

High Quality Libraries Powered by Background Cleaning

CleanPlex for MGI Ready-to-Use NGS Panels are powered by Paragon Genomics' proprietary CleanPlex Technology, which uses a proprietary multiplex PCR background cleaning chemistry to effectively remove non-specific PCR products, resulting in best-in-class target enrichment performance and efficient use of sequencing reads. CleanPlex for MGI Indexed PCR Primers are used with the panels to generate CleanPlex for MGI target-enriched libraries that are compatible with MGISEQ platforms.



High Performance Translates to Cost-Effective Sequencing

A 207-amplicon panel was used to generate target-enriched libraries using either the CleanPlex or Competitor T's library preparation chemistry. The results indicate that 60% less sequencing would be required using CleanPlex, which means 2.5X more samples can be sequenced on a run. To achieve similar data quality, CleanPlex's mean read depth could be reduced to 600X while Competitor T's would need to be increased to >1,500X.



GENOMIC

FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES. 1 | PS5000-02

I. Multiplex PCR

Cleaning



DNA

Purification

and QC

CleanPlex for MGI OncoZoom Cancer Hotspot Panel

8 reactions (SKU 317001), 96 reactions (SKU 317002)

601 amplicons targeting 2,900+ hotspots from 65 oncogenes and tumor suppressor genes

ABL1	CTNNB1	FGFR3	JAK3	NF2	RET
AKT1	DDR2	FLT3	KDR	NOTCH1	SMAD4
ALK	DNMT3A	FOXL2	KIT	NPM1	SMARCB1
APC	EGFR	GNA11	KRAS	NRAS	SMO
ATM	ERBB2	GNAQ	MAP2K1	PDGFRA	SRC
BRAF	ERBB3	GNAS	MET	PIK3CA	STK11
BRCA1	ERBB4	HNF1A	MLH1	PIK3R1	TERT
BRCA2	EZH2	HRAS	MPL	PTCH1	TP53
CDH1	FBXW7	IDH1	MSH6	PTEN	TSC1
CDKN2A	FGFR1	IDH2	MTOR	PTPN11	VHL
CSF1R	FGFR2	JAK2	NF1	RB1	

CleanPlex for MGI BRCA1 & BRCA2 Panel -

8 reactions (SKU 317003), 96 reactions (SKU 317004)

218 amplicons targeting the full exon of the BRCA1 and BRCA2 genes

Learn More

To learn more about CleanPlex for MGI Ready-to-Use NGS Panels, visit www.paragongenomics.com/cleanplex_mgi_panels/

To learn more about CleanPlex Technology, visit www.paragongenomics.com/cleanplex_technology/

Ordering Information

Each CleanPlex for MGI Ready-to-Use Panel contains panel-specific CleanPlex for MGI Multiplex PCR Primers and a CleanPlex Targeted Library Kit. CleanPlex for MGI Indexed PCR Primers and CleanMag[®] Magnetic Beads are ordered separately to complete the workflow from input DNA to sequencing-ready NGS libraries. For additional product configurations visit www.paragongenomics.com/store_mgi/

Related Products	SKU
CleanPlex for MGI Single-Indexed PCR Primers, Set A (16 indexes, 32/96 reactions)	318001 318007
CleanPlex for MGI Single-Indexed PCR Primers, Set B (16 indexes, 32/96 reactions)	318002 318008
CleanPlex for MGI Single-Indexed PCR Primers, Set C (16 indexes, 32/96 reactions)	318003 318009
CleanPlex for MGI Single-Indexed PCR Primers, Set D (16 indexes, 32/96 reactions)	318004 318010
CleanPlex for MGI Single-Indexed PCR Primers, Set E (16 indexes, 32/96 reactions)	318005 318011
CleanPlex for MGI Single-Indexed PCR Primers, Set F (16 indexes, 32/96 reactions)	318006 318012
CleanMag Magnetic Beads (1 mL)	718001
CleanMag Magnetic Beads (5 mL)	718002
CleanMag Magnetic Beads (60 mL)	718003

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