

# CleanPlex<sup>®</sup> 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 DNBSEQ™ 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<sup>®</sup> Technology to enable efficient use of sequencing reads and reduce costs

The CleanPlex<sup>®</sup> 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

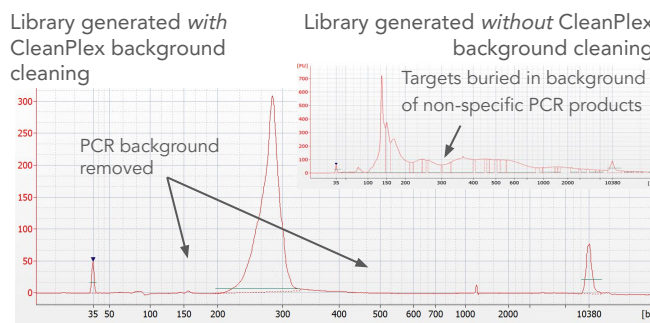
CleanPlex for MGI Ready-to-Use NGS Panels offer a simple and streamlined workflow. Starting from purified and quantitated DNA, the multiplex PCR-based protocol can be completed in just 3 hours, with 75 minutes of hands-on time, using a three-step workflow with minimal tube-to-tube transfers. Each step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



CleanPlex Target Enrichment and Library Preparation  
3 hours of total assay time, 75 minutes of hands-on time

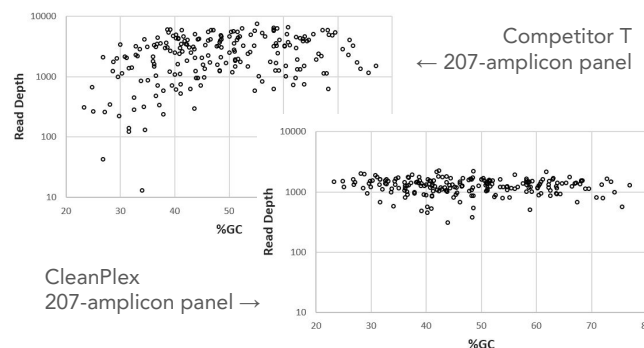
### High Quality Libraries Powered by Background Cleaning

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 DNBSEQ 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.



# CleanPlex® for MGI Ready-to-Use NGS Panels

## 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

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

## 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/](http://www.paragongenomics.com/cleanplex_mgi_panels/)

To learn more about CleanPlex Technology, visit [www.paragongenomics.com/cleanplex\\_technology/](http://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/](http://www.paragongenomics.com/store_mgi/)

Related Products	SKU
CleanPlex® for MGI Plated Single-Indexed PCR Primers, (96 indexes, 96 Rxns)	318013
CleanPlex® for MGI Plated Single-Indexed PCR Primers (96 Indexes, 384 Rxns)	318014
CleanMag Magnetic Beads (1 mL)	718001
CleanMag Magnetic Beads (5 mL)	718002
CleanMag Magnetic Beads (60 mL)	718003