Maximizing Genomic Insights for Solid Tumors

SureSelect Cancer CGP assay

Key Benefits

- Globally curated, clinically relevant biomarker content
- Broad input range to accommodate more sample types
- Fast turnaround time to sequencing results
- Automation options to increase productivity and reproducibility
- Enzymatic fragmentation capability for high library complexity and coverage uniformity

Ordering Information

Expected availability in early 2023

Globally curated content for pan-cancer biomarker profiling

The new Agilent SureSelect Cancer Comprehensive Genomic Profiling (CGP) assay enables laboratory scientists to gain molecular insights and unlock the full potential of genomic profiling to advance precision oncology. This targeted next-generation sequencing (NGS) assay characterizes a wide range of biomarkers, including tumor mutational burden (TMB) and microsatellite instability (MSI), in a single assay. Moreover, the assay's efficient and automatable workflow helps make genomic profiling accessible to the broad clinical research community.

Optimized for use with formalin-fixed, paraffin-embedded (FFPE) and fresh-frozen tissues, the SureSelect Cancer CGP assay delivers high performance results. The modular design of the SureSelect Cancer CGP assay offers flexible DNA and RNA workflows that can be run separately or in parallel. The pan-cancer genes covered by the SureSelect Cancer CGP assay were curated based on highly relevant resources, including established clinical guidelines, ongoing clinical trials, somatic cancer databases, and consultation with leading cancer researchers.

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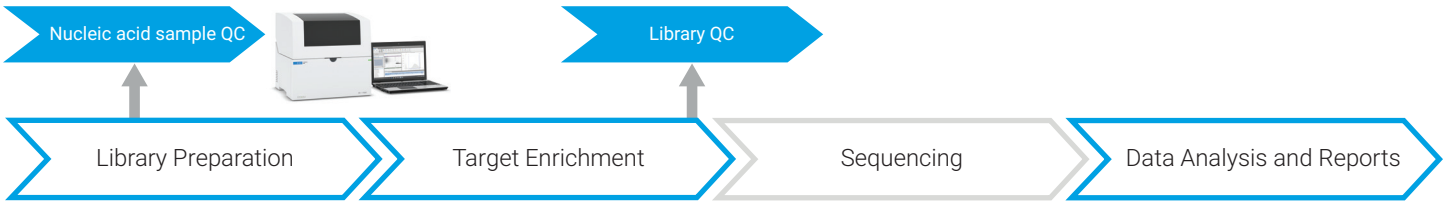
Trusted Answers



SureSelect Cancer CGP Assay

DNA - 679 genes
Detect key classes of somatic variants:
- Single nucleotide variants (SNVs)
- Copy number variants (CNVs)
- Insertions/deletions (Indels)
- Translocations (TLs)
- Tumor mutational burden (TMB)
- Microsatelite instability (MSI)

RNA - 80 genes
Detect *de novo* gene fusions with only one gene partner

Developed using SureSelect XT HS2 library prep chemistry:
- Acommodates input from 10-200 ng to access more samples
- Offers enzymatic fragmentation option to eliminate the need for physical shearing equipment
- Includes molecular barcodes for error-correction
- Option to use automation for improved productivity and reproducibility

Developed for use with Illumina NGS systems:
- NextSeq
- HiSeq
- NovaSeq

Compatible with other sequencing systems*

Flexible data analysis options:
- Alissa Clinical Informatics Platform
- In-house informatics
- Third-party informatics*

Figure 1. Agilent SureSelect Cancer CGP workflow. The SureSelect Cancer CGP workflow enables laboratory scientists to achieve high complexity NGS libraries, with a turnaround time of three and a half days, from nucleic acid sample QC to sequencing results. The assay throughput is scalable on Illumina NGS sequencers from NextSeq to NovaSeq, and compatible with other sequencing platforms*. Multiple options are available for data analysis and annotation.

Magnis NGS Prep System

- Benchtop instrument with 15 minutes hands-on time for convenient, true walkaway automation
- Process up to eight samples per run, and up to two runs per day to fit your daily operations
- Reagent barcode scanning for integrated process checks
- Onboard UV light for decontamination between runs for quality assurance

Bravo NGS Workstation

- High-throughput, bench-top liquid handling system for increased scale and reproducibility even with larger numbers of samples
- Open automation system provides user flexibility in applications to adjust and optimze assays
- Scale up from eight to 96 samples per run without sacrificing data quality

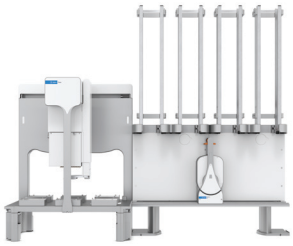


Figure 2. Automation systems for SureSelect Cancer CGP assay. The SureSelect Cancer CGP workflow offers convenient options for automation to maximize lab efficiency with a choice of two automation platforms: Agilent Magnis NGS Prep system for walkaway convenience or the Agilent Bravo NGS Workstation for higher sample throughput. Both systems include on-deck enzymatic fragmentation and bead cleanup to deliver sequencing-ready, target-enriched libraries. These automation systems significantly reduce hands-on time for library preparation and target enrichment, and minimize potential sample-handling errors.

Options for Data Analysis and Interpretation

- Agilent Alissa Interpret accelerates somatic data interpretation and reporting by providing:
  - Access to actionable therapy options and clinical trial information
  - Integration with industry standard gene and variant annotation databaes
  - Reduced turnaround time for variant triage, classification, and reporting
  - Unified workflows across variant modalities
- In-house bioinformatics
- Third-party bioinformatics options*

Figure 3. Modular informatics. Several options are available for data analysis and results interpretation from SureSelect Cancer CGP assay, providing flexibility of choice.

** Please inquire.*

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