Agilent SureSelect CD Curie CGP Panel

Innovation powered by you

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"This collaboration supports the development of a remarkable panel of genes dedicated to the analysis of tumor molecular biology. We apply our knowledge to select the genes, and more generally, the regions of interest, while Agilent allows us to bring life to the design. This technology is already widely used at Institut Curie for our Molecular Tumor Board, oncogenetics, and the discovery of complex tumors."

Targeted next-generation sequencing for comprehensive genomic profiling of cancer

Agilent Community Designs for next-generation sequencing (NGS) are targeted sequencing panels established in collaboration with subject matter experts in different research fields. These NGS designs are available as custom, made-to-order panels that provide you with robust and cost-effective sequencing results that focus only on your genes of interest.

The Agilent SureSelect CD Curie CGP panel was designed in collaboration with experts from Institut Curie as a large NGS panel for solid tumor molecular analysis.

Molecular profiling using targeted NGS is an efficient way of detecting different types of genetic aberrations within a single assay. This panel has been designed to detect standard single nucleotide changes and copy number variations (CNVs) but can also be used to detect more sophisticated genetic hallmarks of cancer such as intragenic rearrangements, tumor mutation burden (TMB), and microsatellite instability (MSI).

Dr. Masliah-Planchon and his team have combined this SureSelect panel with an in-house bioinformatic pipeline to enable comprehensive molecular profiling of a wide variety of solid tumor tissue types. Reports have been used in routine molecular analysis and in tumor board assessments at Institut Curie.

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Attributes of the SureSelect CD Curie CGP panel

The panel contains 571 genes of interest for solid tumor research to advance diagnosis, prognosis, and targeted therapies, including:

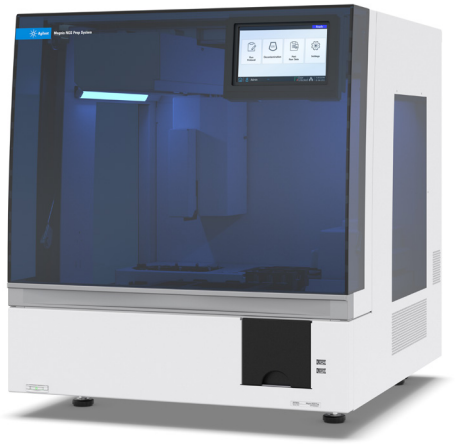
- 29 genes to assay homologous recombination repair (HRR)
- 74 markers for microsatellite instability (MSI) analysis
- 1.6 Mb reference sequence for tumor mutation burden (TMB) variant calling
- 1.1 Mb sequencing backbone for whole genome copy number variation (CNV) analysis (average probe spacing 8 Mb)
- 2.7 Mb total footprint

Additional benefits include:

- Use with Agilent SureSelect XT HS library preparation for an efficient, comprehensive workflow
- Compatibility with 10 to 200 ng of DNA from FFPE, frozen, or plasma (ctDNA) samples for increased input flexibility

The SureSelect CD Curie CGP panel streamlined workflow

The SureSelect CD Curie CGP panel and SureSelect XT HS library preparation have been automated on the Agilent Magnis NGS prep system for walkaway preparation of ready-to-sequence libraries.



The panel has been optimized on several Illumina platforms, demonstrating the workflow's flexibility to meet various throughput and turnaround time requirements. For example:

- NextSeq mid-throughput - eight samples
- NextSeq high-throughput - 24 samples
- NovaSeq SP - 32 samples

Table 1. Ordering information for the Agilent SureSelect CD Curie CGP panel. (Agilent Tier 4)
Note: part numbers cover the capture probe libraries only. Library prep and target enrichment kits must be purchased separately.

Product	Part number
SureSelect CD Curie CGP panel 16	5282-0043
SureSelect CD Curie CGP panel 96	5282-0044
SureSelect CD Curie CGP panel 96A	5282-0045

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Agilent has not performed verification and validation on these panels.

For Research Use Only. Not for use in diagnostic procedures.
PR7001-0636

This information is subject to change without notice.

Published in the USA, March 29, 2023
5994-5849EN

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