



# Focus on Simplicity

Next-generation HT custom CGH microarrays

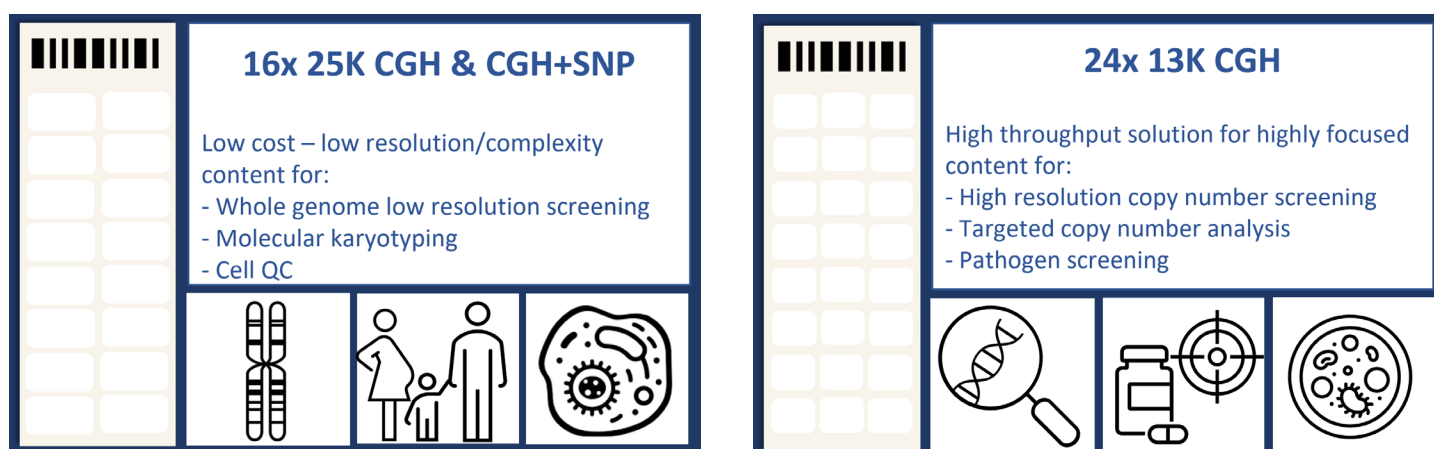
## Key features

- **Reliable** – custom microarrays based on the Agilent SurePrint technology for results you can trust
- **Focused** – tailored content defined by the user starting from catalog probes for more targeted analysis
- **High throughput** – new high-plex format to provide higher throughput with a lower per-sample cost
- **Streamlined** – seamless workflow from sample to results for faster turnaround time
- **Simple** – new labeling kit and HybStation enable easier sample processing

## Focus on what matters with custom SurePrint microarrays for targeted analysis

The new Agilent SurePrint HT CGH microarrays, in three custom microarray formats (16x CGH, 16x CGH+SNP, and 24x CGH), reinvent microarrays by enabling high-throughput analysis of targeted genomic regions. The SurePrint HT CGH arrays allow focused analysis of many samples, with a quick turnaround time and a reduced cost. These arrays are available for comparative genome hybridization (16x and 24x CGH) and loss of heterozygosity (16x CGH+SNP).

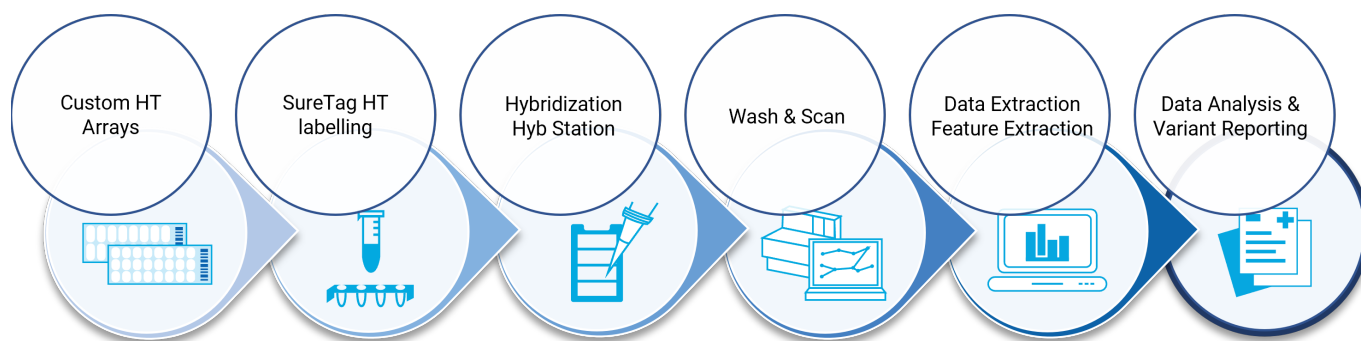
Content can be easily defined by the user starting from our online probe database. Cover the whole genome at high resolution, select a subset of probes from our catalog design, or include newly discovered, sequenced genome regions all with few easy steps.



**Figure 1.** The new Agilent SurePrint HT CGH microarrays include a 16x 25k CGH and CGH+SNP option for low complexity content such as whole-genome screening, and a 24x 13K CGH option for high throughput of focused content such as high-resolution copy number screening.

## A trusted, fast, flexible solution for your research

The SurePrint HT CGH microarrays are part of the Agilent microarray workflow, offering a complete solution from sample to results, featuring a new dedicated HT labelling kit, gaskets, Hyb Station, and full compatibility with existing hardware.



**Figure 2.** The Agilent SurePrint HT CGH microarray workflow, from sample to results.

### Workflow benefits include:

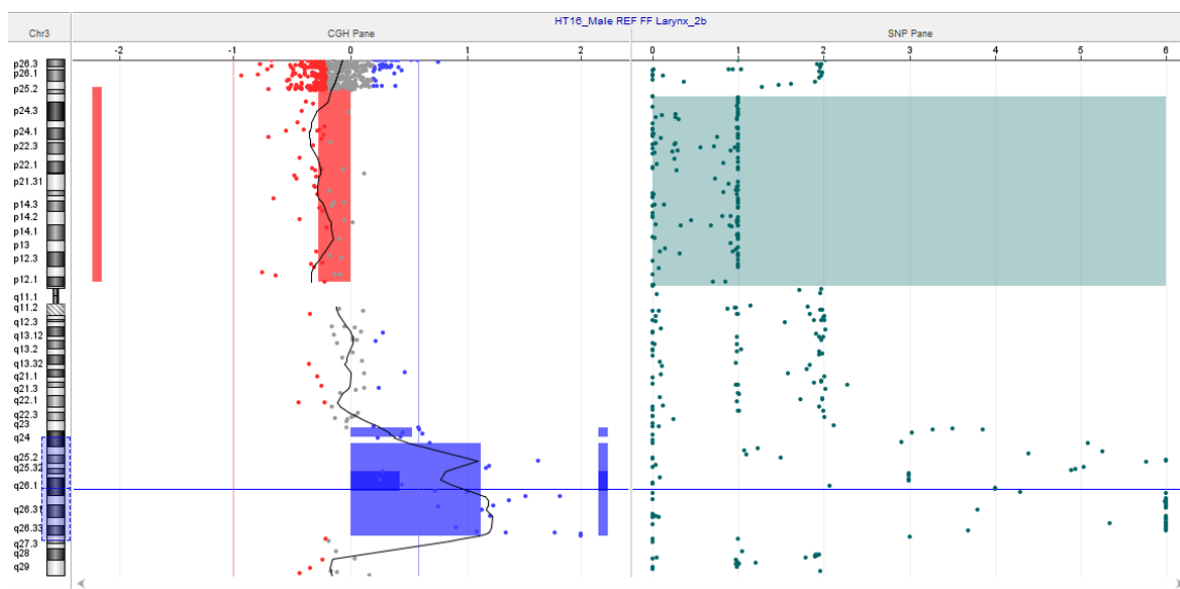
**Flexibility:** use your existing Agilent SureScan and SureScanDx, HybOven, chambers, and HybStation without the need to update your hardware.

**Simplicity:** use the same reagents as your existing CGH arrays for easier order management.

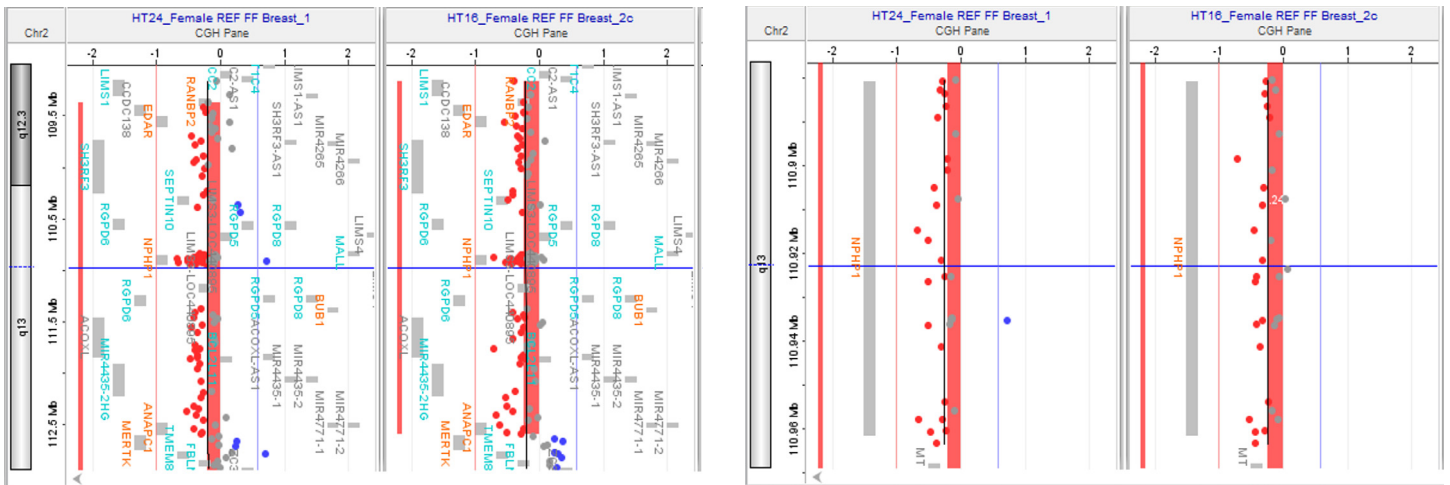
**Compatibility:** arrays are compatible with the Agilent Feature Extraction 12.0 and CytoGenomics 5.3 software

**Efficiency:** bead-based purification is automation-ready and facilitates streamlined processing of multiple samples with high reproducibility.

The new **Agilent SureTag HT labelling kits** offer improved, simplified purification using proprietary nano beads from Agilent and require no speed-vacuum step, enabling efficient processing and adherence to volume requirements. These are ready for implementation on an automated liquid handling platform for increased throughput and improved reproducibility. The kit will be available in two formats, with and without reference DNA included, and enough reagents to process 96 samples for both 16x and 24x arrays.



**Figure 3.** On chromosome 3 (Chr3), this sample displays a 74.8 Mb deletion (3p25.3p12.1) with a log2 ratio of -0.27, indicating that this deletion occurs in a portion of the tumor cells. The SNP probes confirm the deletion. In addition, it displays a 35.5 Mb amplification (3q24q26.33) also confirmed by the SNP probes.

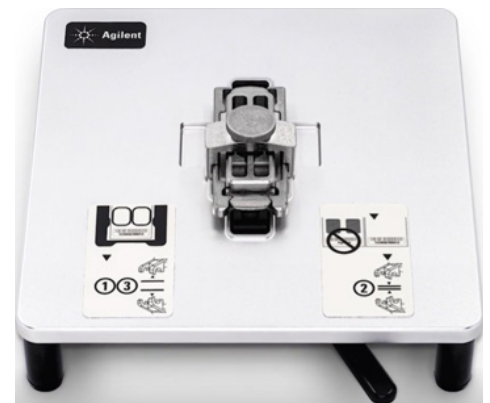


**Figure 4.** Gene view in cytogenomics of a Breast FF sample tested both on 16x and 24x CGH designs. In the top panel is visible a 4 Mb window around a CNV (deletion) on Chr2. Visible in the bottom panel is a zoom-in around gene NPHP1, deletion is detected by both designs.

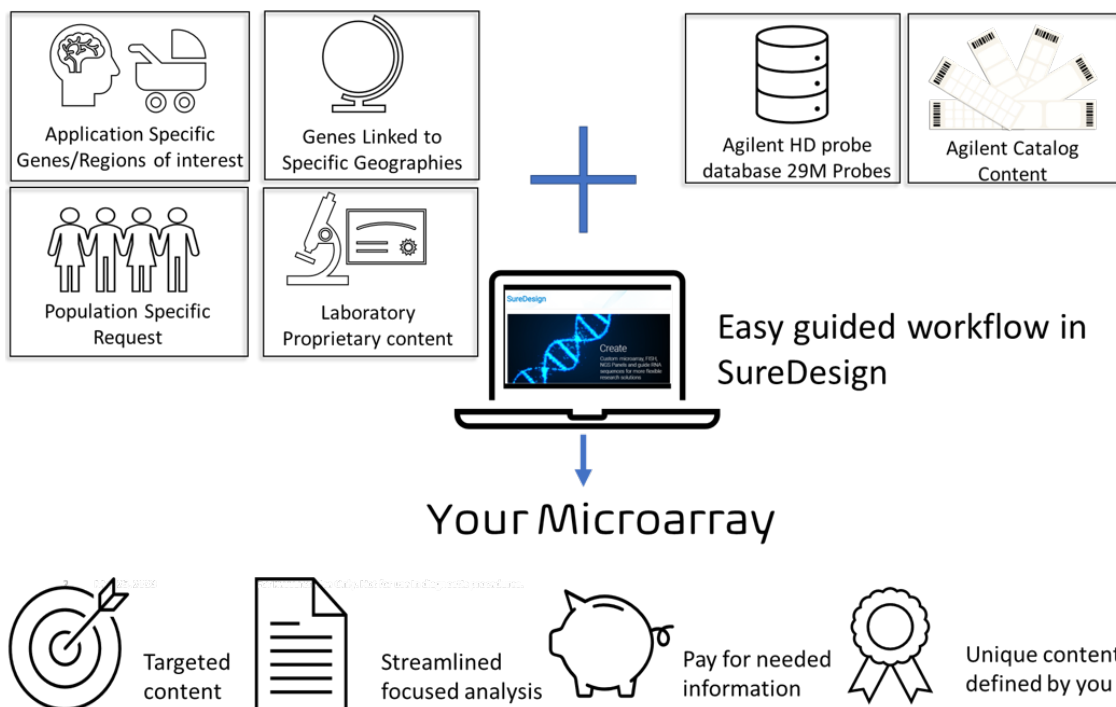
## Improve your workflow with a stress-free sample processing platform

Process your samples with ease and achieve reproducible results while lowering training needs with the Agilent HybStation, a new sample loading platform that provides a consistent and stress-free microarray sample preparation process.

- Designed to provide stability, the platform minimizes errors during each step, addressing the variability of the array loading step where the risk is greatest
- Intended to assist with assembly of Agilent microarray hybridization chambers prior to incubation in a hybridization oven, increasing simplicity and reproducibility of the process



**Figure 5.** The Agilent HybStation provides a convenient and stable platform to efficiently process your microarrays.



## Tailored content for focused analysis

Two new microarray formats, 16x and 24x (Figure 1), can be designed easily through our online web tool selecting regions of interest from existing catalog content, or using the design wizard capability to guide you through the design process. For more info visit <https://earray.chem.agilent.com/suredesign>.

The three new arrays provide a unique combination of throughput, content, and price, filling the gap between multiplexing PCR (not enough data points) and NGS/ microarrays (expensive/complex).

Slides have been optimized to get excellent balance between on-slide multiplexing and content for maximum flexibility in customer designs.

## SurePrint HT CGH Microarrays technical specifications

	16x CGH	16x CGH + SNP	24x CGH
Controls	1,881	1,881	1,881
Normalization Controls	1,262	1,262	1,262
Replicate Probe	1,000	1,000	1,000
CGH or CGH+SNP	21,657	22,919*	8,937
Total	25,800	25,800	13,080

## Ordering information

Part Number	Product Name
G4133A	SurePrint G3 Custom HT Microarray CGH 24x13k
G4132A	SurePrint G3 Custom HT Microarray CGH 16x25K
G4132B	Sureprint G3 Custom HT Microarray CGH+SNP 16x25K
G9978B	SureTag HT CGH labelling kit with SurePure Beads
G9978A	SureTag HT Complete CGH labelling kit with SurePure Beads
G2534-60024	Pack 100 Backings 24 Arrays per Slide, to be used with HT Microarrays
G2534-60023	Pack 20 Backings 24 Arrays per Slide, to be used with HT Microarrays
G2534-60022	Pack 5 Backings 24 Arrays per Slide, to be used with HT Microarrays
G2534-60021	Pack 100 Backings 16 Arrays per Slide, to be used with HT Microarrays
G2534-60020	Pack 20 Backings 16 Arrays per Slide, to be used with HT Microarrays
G2534-60019	Pack 5 Backings 16 Arrays per Slide, to be used with HT Microarrays
G5765A	Hyb Station Platform

## Additional reagents

Part Number	Product Name
5190-0402	Oligo aCGH Prehybridization Buffer
5188-5226	Oligo aCGH/ChIP-on-chip Wash Buffer Kit

[www.agilent.com](http://www.agilent.com)

For Research Use Only. Not for use in diagnostic procedures.  
PR7001-1571

This information is subject to change without notice.

© Agilent Technologies, Inc. 2023  
Published in the USA, October 30, 2023  
5994-6481EN