

GENOMICS INFORMATICS PROTEOMICS METABOLOMICS A T C T G A T C C T T C T G A A C G G A A C T A A T T T C A A G A A T C T G A T C C T T G A A C T A C C T T C C A A G G T G

Agilent Custom Microarrays

Go wherever your research takes you

Agilent's Custom Microarrays put you in total control of the content on each of your microarrays, giving you the optimum tools for specific experimental needs. Through our Custom Microarray Design Services (CMDS) and eArray online array creation application tool, you can create customized microarrays quickly and easily, while maintaining the reproducibility and quality control you expect from Agilent's world-renowned manufacturing processes. Whether studying the genome of a unique organism or delving deeper into a gene set of interest, Agilent's Custom Microarrays offer you the ability to analyze any genome, any application, anytime, anywhere.





Agilent Technologies

Benefits at a Glance

- Easily design your microarray by either choosing from optimized probes for given genes, uploading your own sequences, or having Agilent design probes.
- Establish hypothesis-driven experimentation through dependable, reproducible design iteration.
- Flexibly order in quantities you need at no additional cost, with delivery times of weeks rather than months.
- Target only genes of interest, rather than paying for a non-customized general probe set with features you do not need.

Customization Tailored to Meet Your Research Needs

Agilent's menu of customization options provides a solid foundation for a diverse range of applications. Whether your research utilizes established methods such as RNA expression analysis, or delves into the latest techniques such as chromatin immunoprecipitation (ChIP-onchip) or comparative genomic hybridization (CGH), the Agilent Custom Microarray Platform allows you to construct microarrays that match your specific experimental needs.

Design your experiment from the ground up – on your own terms, and with a focused approach. Agilent allows you to customize your array based on the following options:

- Design Iteration Rapid, low-cost inkjet printing allows infinite sequence flexibility for hypothesis-driven studies
- Probe Length Optimized from 25-60
 base pairs
- Format Multiplexed arrays on a single slide in 1 x 244K, 2 x 105K, 4 x 44K, 4 x 22K, and 8 x 15K formats for maximum efficiency
- Feature Count Microarray densities between 1.9K to 244K per array
- Sensitivity 60-mer oligonucleotide probes are synthesized in situ using liquid chemistry for heightened sensitivity
- Access Manage collaborative research through customer-controlled design access controls and permissions
- Flexibility Tailor array design to your application(s) – gene expression, Oligo aCGH, ChIP-on-chip.

Establish experimental goals and parameters, and determine target sequences of interest Choose an RNA or DNA application, assess target sequence database quality, determine consulting needs, etc.

CMDS

(Use our professional consulting services for guidance)

eArray

(You determine design parameters independently)

Array Layout and Basic QC

Flexible options and inkjet technology combine to offer rapid iteration of 60-mer probe microarrays designed to meet your specifications.

Select or Design Probes

Select Agilent catalog probes, upload your own, or have Agilent design probes for your target sequences database to establish the building blocks of your microarray design.

Figure 1. Steps of the design process

Collect Results

every time.

Every array you design

for results you can trust

comes with Agilent's quality control built in—

You Decide Which Custom Option Best Meets Your Needs

Either by taking advantage of our Custom Microarray Design Services (CMDS) and working with one of our design consultants, or by logging on to eArray—our revolutionary online interface—we put the power of custom arrays into your hands.

Custom Microarray Design Services (CMDS)

Agilent offers a supportive approach to specialized custom microarray design by enabling you to leverage our experts to whatever extent you need. Services provided include:

- Level 1 Consulting Microarray layout and basic QC
- Level 2 Consulting Probe design/curation and microarray layout
- Professional Consulting Clustering and assembly of target sequences, database development, and annotation
- Application-specific design such as CGH and ChIP-on-chip high-resolution probe selection and layout

eArray

Agilent's eArray online microarray design tool enables you to design custom arrays in a secure, web-based environment, putting you in total control while reducing the costs typically incurred with customized commercial arrays. With eArray, the design of your custom microarrays is as easy as uploading your sequence as a text file or searching public databases of genomic information. The eArray web tool allows you to:

- Create custom microarray designs
- Submit array designs to Agilent's manufacturing facility directly
- Download annotation files for use in image and data analysis applications
- Work collaboratively and share designs with colleagues

Which Custom Service is Right For You?		
	CMDS if your:	eArray if your:
Microarray design requirements	 Require assistance Are not eArray-supported 	Can be set up and managed without difficulty
Probe design and optimization	 Require assistance Are not eArray-supported 	 Utilize your own probes Utilize Agilent Catalog probes
End goal or application	Is not eArray-supported	Is a standard Agilent offering

About Agilent's Integrated Biology Solutions

Agilent Technologies is a leading supplier of life science research systems that enable scientists to understand complex biological processes, determine disease mechanisms, and speed drug discovery. Engineered for sensitivity, reproducibility, and workflow productivity, Agilent's integrated biology solutions include instrumentation, microfluidics, software, microarrays, consumables, and services for genomics, proteomics, and metabolomics applications. Buy online: www.agilent.com/chem/store

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U.S. and Canada 1-800-227-9770 agilent_inquiries@agilent.com

Asia Pacific adinquiry_aplsca@agilent.com

Europe info_agilent@agilent.com

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