

GENOMICS PROTEOMICS INFORMATICS

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Integrated Biology Solutions

Agilent Canine Oligo Microarray

Product Note

Canis familiaris (Domestic dog) is an important biomedical model organism for research in cardiology, cancer, diabetes, behavioral disorders, toxicology, and numerous other human conditions with suspected genetic origins. Centuries of selective inbreeding and the resulting narrow gene pools of individual breeds have linked specific breeds with unique susceptibility to certain diseases, making them particularly useful for understanding the genetic bases for these diseases in both dogs and humans. The fully sequenced dog genome (*Nature*, 2005 Dec 8) provides a solid foundation for Agilent's *Canis familiaris* microarray.

Content and Convenience You Need in a Microarray

Agilent's Canine Oligo microarray is on a 1 x 3 inch (25 mm x 75 mm) glass slide. Each 44,290-feature microarray contains 42,034 (60-mer) probes representing predicted *Canis familiaris* genes. The sequence and annotation information is based on the canine genome from public data sources of RefSeq (Release 6), Unigene (build #12), Ensembl (Release 32), and TIGR (Release 6, January 2005). The content of this microarray was developed with researchers at Johns Hopkins Medical Institute.

Features at a Glance

- Comprehensive coverage of *Canis familiaris* genome on a single microarray
- Complete access to probe sequence information and annotation through Agilent's Web site and eArray application
- Unparalleled sensitivity in a microarray for detecting genes with low expression levels - delivered by Agilent's unique 60-mer oligonucleotide probe format
- Consistent feature (spot) quality from microarray-to-microarray yielding results you can trust
- Agilent's dual-mode processing capability couples the ease of one-color experimental design with the performance of sensitive two-color detection
- Accessible format-microarrays on barcoded, 1" x 3" (25 mm x 75 mm) glass slides



Agilent Technologies

Agilent Canine Oligo Microarray

Number of genes and transcripts on microarray	42,034
Feature size	~135 µm
Microarray format	44K
Oligo probe length	60-mer
Probe orientation	Sense
Average Intensity Reproducibility CV:	<15%
Detection sensitivity:	1 in 1,400,000 transcripts
Dynamic range :	Over 4 orders of magnitude
RNA sample requirement/labeling reaction	50 ng of total RNA for amplified cRNA labeling for two-color processing, 200 ng for one-color processing
Type of labeling	Cyanine 3 and Cyanine 5 fluorescent labeling
Overall assay time	18.5 hours

Specifications

Based on platform performance technical overview found at:
www.agilent.com/chem/dualmode

eArray

eArray is a secure Web tool that enables customers to have online access to Agilent's DNA microarray content, annotation information and probe sequences, and to perform real-time

custom microarray design. For more information, check out
<http://earray.chem.agilent.com/earray>

Need a Lab to Run Your Microarrays?

If you are interested in accessing 60-mer oligo microarrays, but need a lab to run them for you, be sure to check out one of Agilent's Certified Service Provider Laboratories.

<http://www.agilent.com/chem/csp/>

Ordering Information

Description	Part number
<i>Canis familiaris</i> Oligo Microarray	G2519A option 004
Fluorescent Direct Label Kit	G2557A
Low RNA Input Fluorescent Linear Amplification Kit	5184-3523
Gene Expression Hybridization Kit Plus	5184-3568
Hybridization Chamber (22K or 44K)	G2534A
Microarray Gasket Slide Kit	G2534-60003
Agilent Microarray Scanner	G2565BA
Buy online today at:	www.agilent.com/chem/store

For More Information

Agilent's Web site offers additional performance data, ordering and configuration information, technical publications and more. Visit our Web site for more details about this microarray as well as Agilent's complete gene expression solution.
<http://www.chem.agilent.com>

For a complete listing of customer centers by country, visit our Web site at:
www.agilent.com/chem/contactus

To request additional information or have an Agilent sales representative contact you:

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