

UHNMAC Services & Products

Take advantage of our expertise

The UHNMAC is an Agilent Certified Services Provider. Our qualified technicians have participated in a rigorous certification programme to ensure the customer is given the best possible service.

Save time & money

Due to the fact that expensive lab equipment and extensive practical experience are required to successfully conduct microarray experiments, many researchers out-source microarray experiments to core facilities. The UHNMAC offers a number of microarray services at reasonable prices.

Get quality data

Quality metrics are in place throughout the labelling and hybridisation process to help ensure quality data. Following the microarray experiment, the data is analysed using Agilent's CGH Analytics software and a customised report is prepared for your project.

We offer several array-based services including:

Gene Expression
Differential Methylation
ChIP-on-Chip
aCGH
Performed on Affymetrix, Agilent, and/or
cDNA platforms

- Custom Array Printing & Clone Production
- Agilent 2100 Bioanalyzer
- NanoDrop Spectrophotometer
- Training

The following array products are printed in-house:

- Human Arrays: 8K, 10K, 19K cDNA; 8.1K and 12K CpG Islands
- Mouse Arrays: 22.4K cDNA; 4.6K CpG Islands; MEEBO 38.5K oligo
- Yeast 6.4K ORFs Array

Visit our microarray database at

<http://data.microarrays.ca/>

- locate and annotate clones
- search single or multiple clones
- links to NCBI, UCSC, PubMed & other databases
- available for cDNA and CpG arrays

UHN Microarray Centre
Toronto Medical Discovery Tower
101 College Street, Rm 9-301
Toronto, Ontario
M5G 1L7
Tel: 416-581-7623
Fax: 416-581-7430
Toll-free: 1-877-294-4410
(Canada & USA)

www.microarrays.ca

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Array Comparative Genomic Hybridisation (aCGH) Services

at the
University Health Network
Microarray Centre

www.microarrays.ca

Array CGH services at the UHNMAC

- aCGH services offered using Agilent's oligonucleotide CGH arrays
- UHNMAC is an Agilent Certified Services Provider (Qualified technicians have participated in a rigorous certification programme to ensure the customer is given the best possible service)
- Reasonable Service Pricing
- Price includes: Labelling of two DNA samples (cyanine-3/cyanine-5), cost of the array, hybridisation, washing, scanning, spot quantification (Feature Extraction Software)
- Data analysis (CGH Analytics) is optional and is available for an additional \$80 per array

| Agilent CGH array | Cost for < 8 arrays (per array) | Cost for > 9 arrays (per array) |
|-------------------------|---------------------------------|---------------------------------|
| Human 44B/ Mouse 44A | \$750 | \$650 |
| Human/ Mouse 105A | \$700 | \$600 |
| Human/ Mouse 244K | \$900 | \$800 |



Agilent microarray scanner

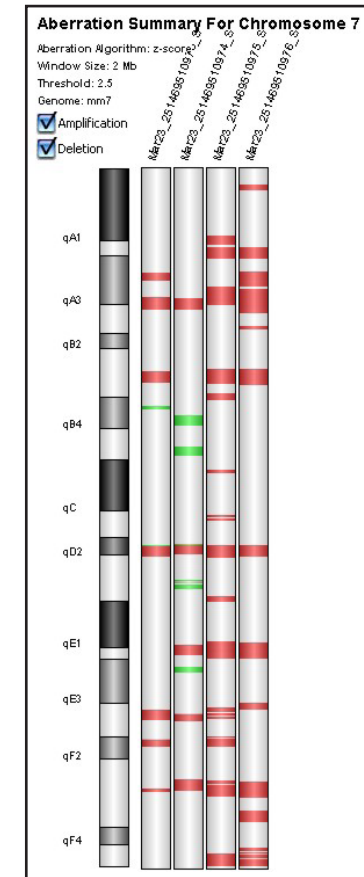
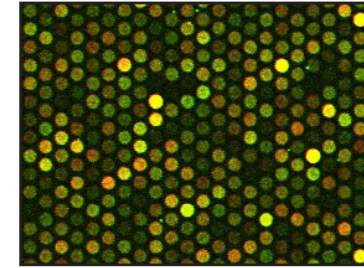
Applications of aCGH

aCGH is a microarray-based technique that merges traditional chromosome analysis with molecular diagnostics. aCGH can identify aberrations that are invisible to traditional karyotype analysis and FISH.

- gene discovery
- carcinoma characterisation
- definitive localisation of areas associated with particular diseases or disorders
- find deletions, duplications, aneuploidies and amplifications in patients with certain clinical phenotype but normal karyotype

Advantages of using the Agilent oligonucleotide platform for aCGH

- Dynamic analytical range for challenging and complex, heterogeneous samples
- 0.5 µg genomic DNA input required (random primer labelling without amplification)
- No need for sample amplification and complexity reduction (although not necessary, these techniques can be used if required)
- Integration of aCGH and gene expression data using CGH Analytics software
- Array customisation is possible
- Higher genomic-mapping resolution



Following sample labelling and array hybridisation, the signal intensity on the array is quantified. Analysis with CGH Analytics (Agilent) provides a schematic diagram of each chromosome showing genomic regions of amplifications and deletions.