



Oncology Focused Gene Expression Services

Providing Genomic Insight to Improve Trial Outcome

Whether you are interested in immediate testing or storing samples for the future, we offer extensive expertise in gene expression analysis. As part of our biomarker solutions for clinical trials, we offer both off-the-shelf gene expression assays and custom absolute relative and quantitative assays developed on-site.

Unparalleled Experience in Gene Expression

Quality, expertise, and customer satisfaction drive CGI's core business model in Innovative Genomic Biomarker Solutions. We provide seamless and dynamic coupling of comprehensive project life cycle management and full logistical support with the power of tested platforms for sample extraction and purification, genotyping, gene expression analysis, and highly customized pharmacogenomics (PGx) applications and expertise.

CGI is transforming global drug development with clinical pharmacogenomic solutions that will help identify more qualified target populations for clinical studies and optimize safety and efficacy of therapeutic compounds. The result is an overall improvement in Return on Investment, an important consideration in these days of escalating drug discovery and development costs.

Specialized Protocols for RNA Extraction in Various Tissue Types

- Bone Marrow
- Striated muscle
- Cell pellets
- FFPE
- Fibroblasts
- Hair follicles
- Cell lines
- Fresh Frozen Tissue

Oncology Focused Gene Expression Assays

- APEX1
- DPD
- MLH1
- POLA
- TK1
- UNG
- CDA
- ERCC1
- OPRT
- RRM1
- TP
- XRCC1
- DCK
- HES1
- PCNA
- SLC29A1
- TS
- XRCC5

Array Based Gene Expression

- U133
- Exon
- TLDA
- Gene ST
- Human Transcriptome Assay

Gene Expression Services

Arrays Design Strategy	GeneChip®					
	Human Genome U133 Plus 2.0	PrimeView™ Human Gene Expression	Exon 1.0 ST	Gene 1.0 ST	Gene 2.0 ST	Human Transcriptome 2.0
	600 bp in 3' end		Whole-transcript coverage			
Summary of array application	Result analysis in context of extensive published studies	Standard pathway and gene analysis	Analysis of expression at the exon level and/or gene	Gene expression with some exon analysis possible	Updated gene expression with some exon analysis	Gene & transcript isoform differential expression analysis
Gene-level well-annotated content	+	+	+++	++	++	+++
Gene-level putative content	+	-	++	+	-	-
Exon-level well-annotated content	-	-	+++	+	++	+++
Exon-level putative content	-	-	+	-	-	-
Long intergenic non-coding RNA	++	+	++	+	+++	+++
Introns	-	-	++	-	-	+
Total probes (thousands)	>604	>530	>5,300	>764	>932	>6,700
Exon-level probe sets (thousands)	-	-	-	>253	>349	>914
RefSeq (thousands)	>34	>35	>35	>22	>34	>37
Median # of probes per transcript	9-11	9-11	40	26	21	150
Median # of probes per exon	-	-	4	2-3	2-3	10
Median gene sequence measured per transcript	275 bp	275 bp	1000 bp	650 bp	525 bp	3750
Available formats	cartridge, strips, plates	cartridge, strips, plates	cartridge	cartridge, strips, plates	cartridge, strips, plates	cartridge
Minimal total RNA input req.	50 ng	50 ng	50 ng	50 ng	50 ng	50 ng
Relative cost	+++	+	+++	++	++	+++
Applications						
Alternative splicing (adv. discovery)	-	-	++	+	+	+++
Exon-level differential expression	-	-	++	+	+	+++
Gene signature discovery	+++	+	+++	++	++	+++
Pathway discovery	+++	++	+	+++	+++	+++
Gene signature utilization	+++	++	+	++	++	+++
Gene signature validation	+++	++	+	++	++	+++
Ease of interpretation	+++	+++	+	+++	+++	+++
Total file size per sample	~165 MB	~230 MB	~1 MB	~165 MB	~165 MB	~1 MB

Affymetrix Expression Portfolio Overview

The CGI Advantage

CGI clinical pharmacogenomics services are performed in a CLIA-certified, GCLP-compliant laboratory environment that exceeds the standards for quality, reliability, and consistency. Our clients have the assurance that the data generated to support their clinical trials is robust and will meet regulatory standards. Extensive validation procedures and a comprehensive Quality Assurance program, support our success rate in repeatedly passing rigorous on-site client and regulatory audits.

CGI Laboratory Licensure

CAP (Laboratory #: 7191582 AU-ID: 1434060 (NJ); 8033768 AU-ID: 1636028 (NC); 7209131 AU-ID: 1506668 (CA)), CLIA (Certificate #: 31D1038733 (NJ); 34D1009209 (NC); 05D1066073 (CA)), New Jersey (CLIS ID #: 0002299), New York State (PFI: 8192), Pennsylvania (031978), Florida (800018142), Maryland (1395), California (COS00800558) (CA)

For more information, contact:

CGI RTP

133 Southcenter Ct., Suite 400
Morrisville, North Carolina 27560
Tel: 919.465.0100

www.cancergenetics.com

