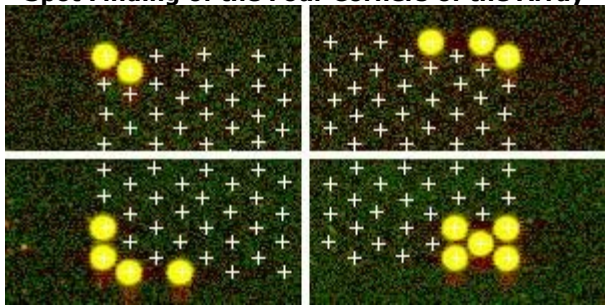


QC Report - Agilent Technologies : 2 Color Gene Expression

QCMetrics InRange (10 of 12)

Date	Tuesday, December 02, 2008 - 15:48	BG Method	No Background
Image	167-201-xdr_251485038757_S01_H [1_4]	Background Detrend	On(FeatNCRange, LoPass)
Protocol	GE2-v5_95_Feb07 (Read Only)	Multiplicative Detrend	True
User Name	scan	Dye Norm	Linear Lowess
Grid	014850_D_F_20060807	Linear DyeNorm Factor	1.2(Red) 32.8(Green)
FE Version	9.5.3.1	Additive Error	3(Red)96(Green)
		Saturation Value	644095 (r), 489983 (g)

Spot Finding of the Four Corners of the Array



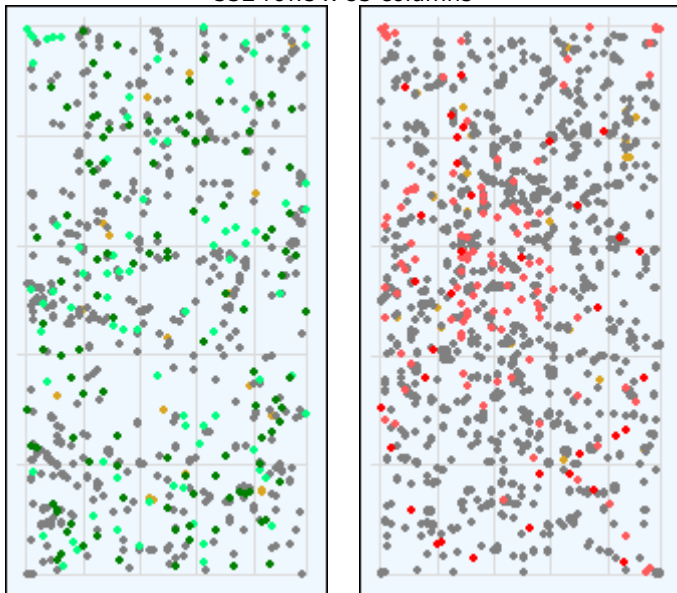
Grid Normal

Feature	Local Background	
	Red	Green

Non Uniform	35	110	68	32
Population	112	82	1210	532

Spatial Distribution of All Outliers on the Array

532 rows x 85 columns



FeatureNonUnif (Red or Green) = 111(0.25%)

GeneNonUnif (Red or Green) = 103 (0.251 %)

- BG NonUniform ● BG Population
- Red FeaturePopulation ● Red Feature NonUniform
- Green FeaturePopulation ● Green Feature NonUniform

Net Signal Statistics

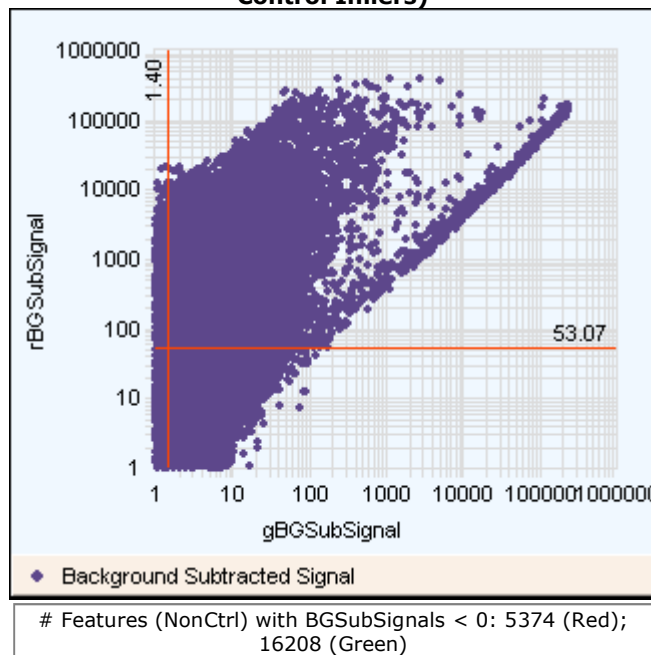
Agilent SpikeIns:

	Red	Green
# Saturated Features	0	0
99% of Sig. Distrib.	248487	1453
50% of Sig. Distrib.	48930	255
1% of Sig. Distrib.	2497	23

Non-Control probes:

	Red	Green
# Saturated Features	0	0
99% of Sig. Distrib.	56217	1660
50% of Sig. Distrib.	78	16
1% of Sig. Distrib.	21	9

Red and Green Background Corrected Signals (Non-Control Inliers)



Negative Control Stats

Red Green

Average Net Signals	22.58	13.82
StdDev Net Signals	2.53	2.65
Average BG Sub Signal	-2.68	-1.18
StdDev BG Sub Signal	2.16	2.51

Local Bkg (inliers)

Red Green

Number	43769	44460
Avg	59.69	53.70
SD	2.09	3.43

Foreground Surface Fit

Red Green

RMS_Fit	1.32	0.89
RMS_Resid	2.36	2.91
Avg_Fit	64.49	54.39

Reproducibility: %CV for Replicated Probes

Median %CV Signal (inliers)

Non-Control
probes

Agilent SpikeIns

Red Green Red Green

BGSubSignal	13.76	13.17	10.40	9.05
ProcessedSignal	6.37	11.67	4.19	4.16

Array Uniformity: LogRatios

Non-Control Agilent SpikeIns

AbsAvgLogRatio	0.51	0.51
AverageS/N	5.69	12.41

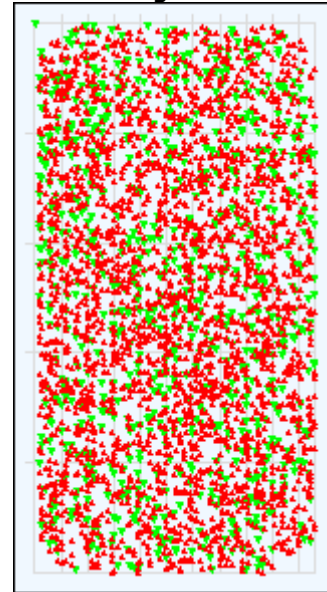
Sensitivity:Agilent SpikeIns - Ratio of Signal to Background for 2 dimmest probes

(+)E1A_r60_n11

(+)E1A_r60_a97

(g)	(r)	(g)	(r)
114.9	2.4	250.1	2.0

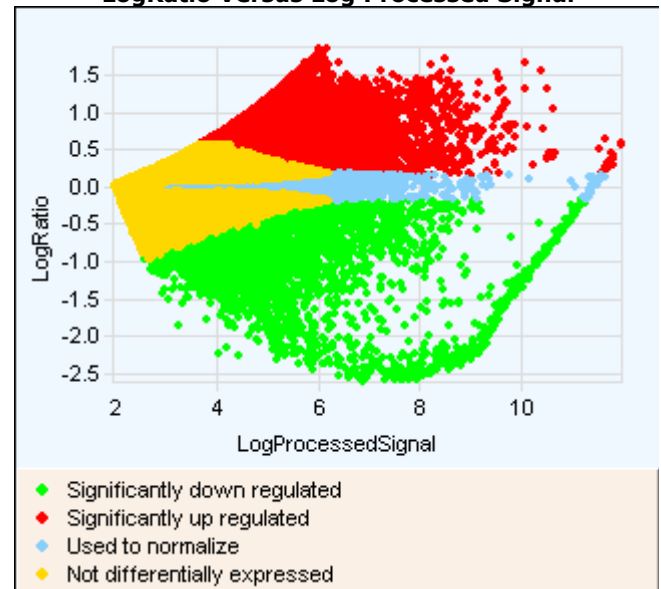
Spatial Distribution of Significantly Up-Regulated and Down-Regulated Features



#Up-Regulated:11185 (Red) ; #Down-Regulated:3434 (Green)

▲ Up-Regulated ▼ Down-Regulated

LogRatio Versus Log Processed Signal



Agilent SpikeIns Signal Statistics

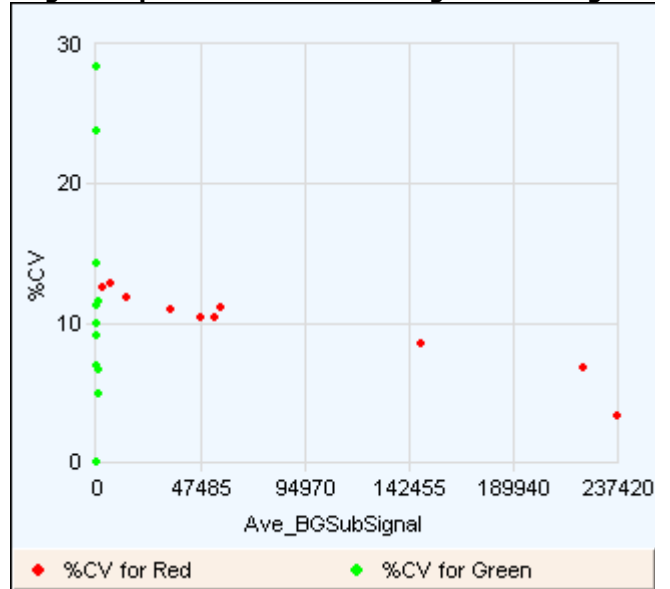
Probe Name	Exp	Obs	SD	S/N
(+)E1A_r60_n9	-1.00	-0.17	0.02	8.32
(+)E1A_r60_a107	-0.48	0.30	0.02	12.95
(+)E1A_r60_a135	-0.48	-0.09	0.03	2.76
(+)E1A_r60_n11	-0.48	0.16	0.15	1.12
(+)E1A_r60_1	0.00	0.30	0.02	13.14
(+)E1A_r60_a20	0.00	1.11	0.06	18.43
(+)E1A_r60_3	0.48	0.42	0.03	16.40
(+)E1A_r60_a104	0.48	0.82	0.03	31.52
(+)E1A_r60_a97	0.48	0.55	0.14	4.07
(+)E1A_r60_a22	1.00	1.16	0.08	15.40

Evaluation Metrics for GE2_QCMT_Feb07

Metric Name	Value	UpLim	LowLim	IsMandatory
AnyColorPrcntBGNonUnifOL	0.22	5.00	NA	False
AnyColorPrcntFeatNonUnif...	0.25	1.00	NA	False
absE1aObsVsExpCorr	0.64	NA	0.86	False
absE1aObsVsExpSlope	0.60	NA	0.85	False
gE1aMedCvBkSubSignal	9.05	25.00	NA	False
gNegCtrlAveBGSubSig	-1.18	10.00	-20.00	False
gNegCtrlSDvBGSubSig	2.51	15.00	NA	False
gNonCtrlMedCvBkSubSignal	13.17	25.00	NA	False
rE1aMedCvBkSubSignal	10.40	25.00	NA	False
rNegCtrlAveBGSubSig	-2.68	4.00	-20.00	False
rNegCtrlSDvBGSubSig	2.16	6.00	NA	False
rNonCtrlMedCvBkSubSignal	13.76	25.00	NA	False

◆ In Normal Range ◆ Evaluate

Agilent SpikeIns: % CV of Average BG Sub Signal



Agilent SpikeIns: Expected LogRatio Vs Observed LogRatio

