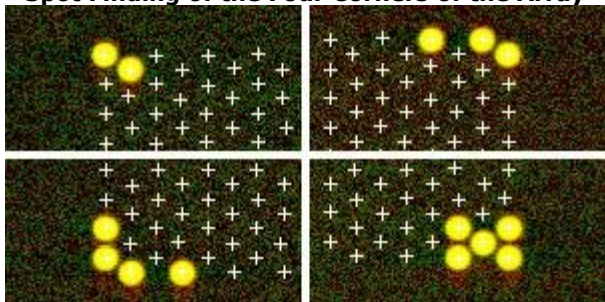


QC Report - Agilent Technologies : 2 Color Gene Expression

QCMetrics InRange (12 of 12)

Date	Tuesday, December 02, 2008 - 15:48	BG Method	No Background
Image	167-201-xdr_251485038758_S01_H [1_3]	Background Detrend	On(FeatNCRRange, 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	0.881(Red) 1.5(Green)
FE Version	9.5.3.1	Additive Error	2(Red)6(Green)
		Saturation Value	644359 (r), 485398 (g)

Spot Finding of the Four Corners of the Array



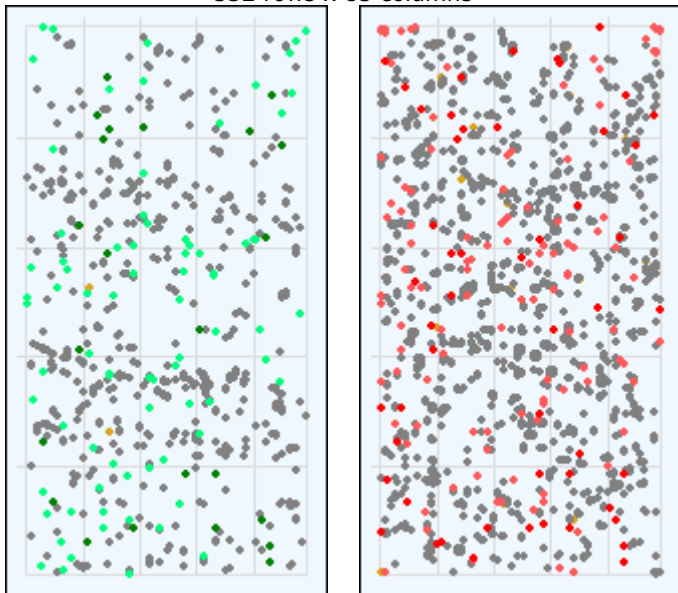
Grid Normal

Feature	Local Background	
	Red	Green

Non Uniform	52	23	55	13
Population	113	79	1252	523

Spatial Distribution of All Outliers on the Array

532 rows x 85 columns



FeatureNonUnif (Red or Green) = 52(0.12%)

GeneNonUnif (Red or Green) = 47 (0.115 %)

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

Net Signal Statistics

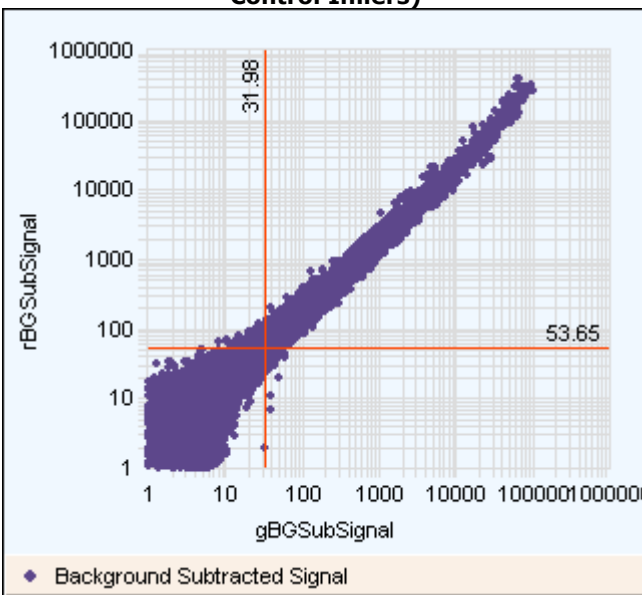
Agilent SpikeIns:

	Red	Green
# Saturated Features	0	0
99% of Sig. Distrib.	194916	104349
50% of Sig. Distrib.	28083	13826
1% of Sig. Distrib.	1376	500

Non-Control probes:

	Red	Green
# Saturated Features	0	0
99% of Sig. Distrib.	57416	26762
50% of Sig. Distrib.	79	50
1% of Sig. Distrib.	21	11

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



Features (NonCtrl) with BGSubSignals < 0: 5412 (Red); 8464 (Green)

Negative Control Stats

Red Green

Average Net Signals	23.69	15.50
StdDev Net Signals	2.14	3.30
Average BG Sub Signal	-1.77	-2.53
StdDev BG Sub Signal	2.01	3.22

Local Bkg (inliers)

Red Green

Number	43739	44490
Avg	61.38	55.07
SD	2.15	3.71

Foreground Surface Fit

Red Green

RMS_Fit	0.66	0.84
RMS_Resid	2.39	3.79
Avg_Fit	64.53	57.50

Reproducibility: %CV for Replicated Probes

Median %CV Signal (inliers)

Non-Control
probes

Agilent SpikeIns

Red Green Red Green

BGSubSignal	11.32	11.25	9.10	7.89
ProcessedSignal	4.73	4.95	3.82	4.16

Array Uniformity: LogRatios

Non-Control Agilent SpikeIns

AbsAvgLogRatio	0.07	0.50
AverageS/N	3.72	59.26

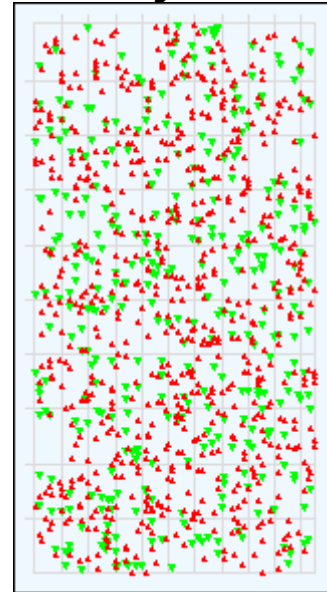
Sensitivity:Agilent SpikeIns - Ratio of Signal to Background for 2 dimmest probes

(+)E1A_r60_n11

(+)E1A_r60_a97

(g)	(r)	(g)	(r)
61.5	155.0	122.1	32.7

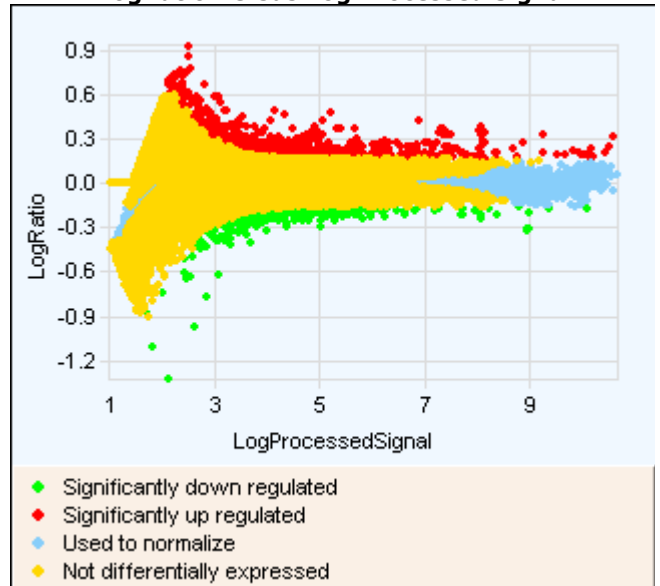
Spatial Distribution of Significantly Up-Regulated and Down-Regulated Features



#Up-Regulated:710 (Red) ; #Down-Regulated:355 (Green)

▲ Up-Regulated ▼ Down-Regulated

LogRatio Versus Log Processed Signal



Agilent SpikeIns Signal Statistics

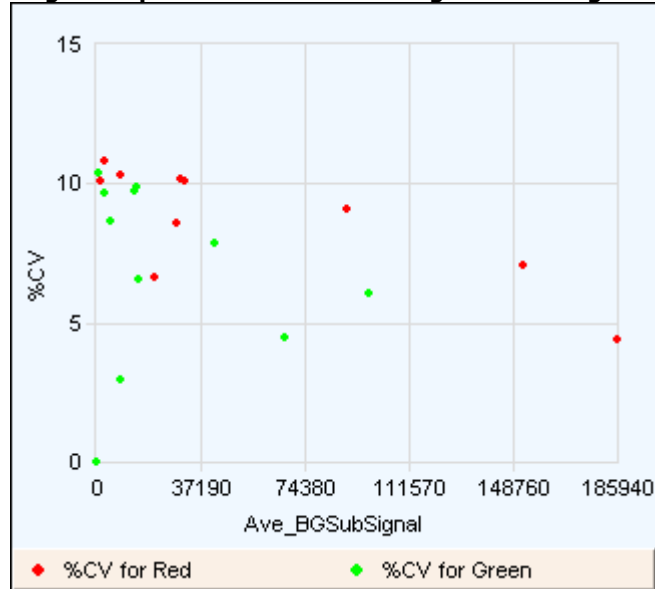
Probe Name	Exp	Obs	SD	S/N
(+)E1A_r60_n9	-1.00	-1.04	0.01	166.43
(+)E1A_r60_a107	-0.48	-0.51	0.01	94.65
(+)E1A_r60_a135	-0.48	-0.45	0.01	89.96
(+)E1A_r60_n11	-0.48	-0.47	0.01	43.14
(+)E1A_r60_1	0.00	0.03	0.01	5.83
(+)E1A_r60_a20	0.00	-0.08	0.02	4.72
(+)E1A_r60_3	0.48	0.51	0.01	56.77
(+)E1A_r60_a104	0.48	0.43	0.02	21.41
(+)E1A_r60_a97	0.48	0.53	0.02	33.36
(+)E1A_r60_a22	1.00	1.00	0.01	76.37

Evaluation Metrics for GE2_QCMT_Feb07

Metric Name	Value	UpLim	LowLim	IsMandatory
AnyColorPrcntBGNonUnifOL	0.14	5.00	NA	False
AnyColorPrcntFeatNonUnif...	0.12	1.00	NA	False
absE1aObsVsExpCorr	1.00	NA	0.86	False
absE1aObsVsExpSlope	1.02	NA	0.85	False
gE1aMedCVBkSubSignal	7.89	25.00	NA	False
gNegCtrlAveBGSubSig	-2.53	10.00	-20.00	False
gNegCtrlSDDevBGSubSig	3.22	15.00	NA	False
gNonCtrlMedCVBkSubSignal	11.25	25.00	NA	False
rE1aMedCVBkSubSignal	9.10	25.00	NA	False
rNegCtrlAveBGSubSig	-1.77	4.00	-20.00	False
rNegCtrlSDDevBGSubSig	2.01	6.00	NA	False
rNonCtrlMedCVBkSubSignal	11.32	25.00	NA	False

◆ In Normal Range ◆ Evaluate

Agilent SpikeIns: % CV of Average BG Sub Signal



Agilent SpikeIns: Expected LogRatio Vs Observed LogRatio

