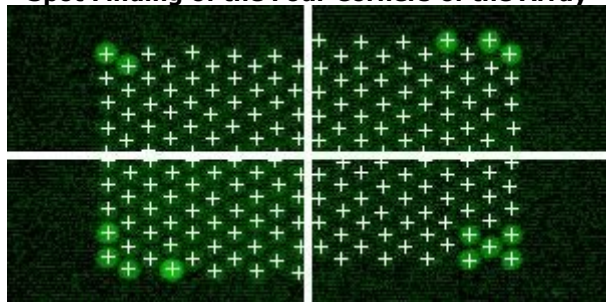


QC Report - Agilent Technologies : 1 Color Gene Expression

Date	Friday, March 04, 2011 - 15:54	Grid	027516_D_F_20100501
Image	US81603235_252751610049_S01 [1_1]	BG Method	No Background
Protocol	GE1_107_Sep09 (Read Only)	Background Detrend	On(FeatNCRRange, LoPass)
User Name	rockstro	Multiplicative Detrend	True
FE Version	10.7.3.1	Additive Error	3(Green)
Sample(red/green)		Saturation Value	778045 (g)

Spot Finding of the Four Corners of the Array

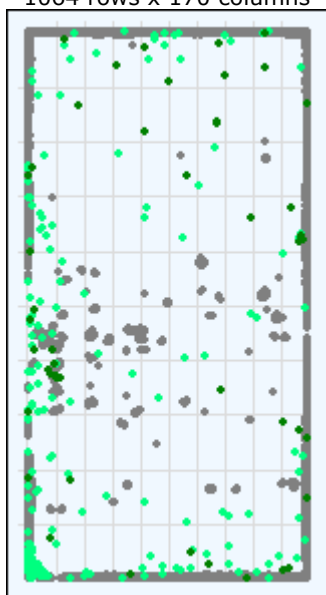


Grid Normal

Feature	Local Background	
	Green	Green
Non Uniform	48	0
Population	235	4733

Spatial Distribution of All Outliers on the Array

1064 rows x 170 columns



FeatureNonUnif (Green) = 48(0.03%)

GeneNonUnif (Green) = 41 (0.023 %)

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

Net Signal Statistics

Agilent SpikeIns:

Green

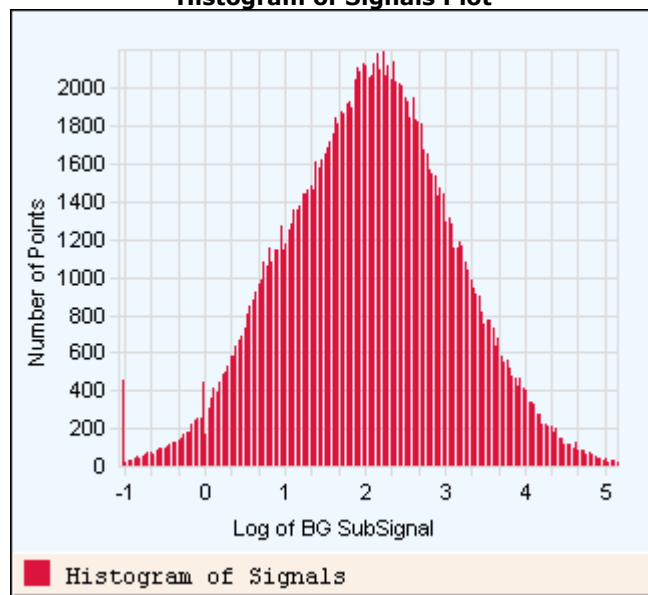
# Saturated Features	0
99% of Sig. Distrib.	188311
50% of Sig. Distrib.	343
1% of Sig. Distrib.	29

Non-Control probes:

Green

# Saturated Features	0
99% of Sig. Distrib.	17872
50% of Sig. Distrib.	105
1% of Sig. Distrib.	27

Histogram of Signals Plot



Features (NonCtrl) with BGSubSignal < 0: 17824 (Green)

Negative Control Stats

Green

Average Net Signals	30.25
StdDev Net Signals	3.66
Average BG Sub Signal	-3.68
StdDev BG Sub Signal	2.43

Local Bkg (inliers)

Green

Number	176147
Avg	24.96
SD	1.62

Foreground Surface Fit

Green

RMS_Fit	2.79
RMS_Resid	2.95
Avg_Fit	38.99

Multiplicative Surface Fit

Green

RMS_Fit	0.27
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Reproducibility: %CV for Replicated Probes

Median %CV Signal (inliers)

Non-Control
probes

Agilent SpikeIns

Green

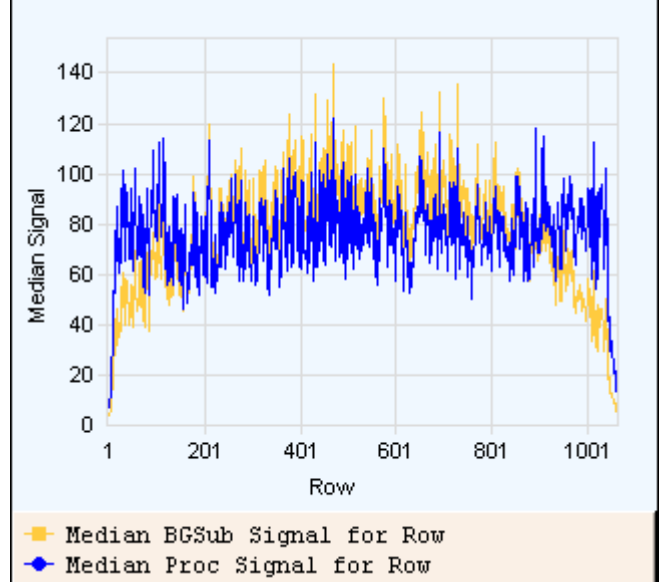
Green

BGSubSignal	29.83	36.00
ProcessedSignal	23.69	27.91

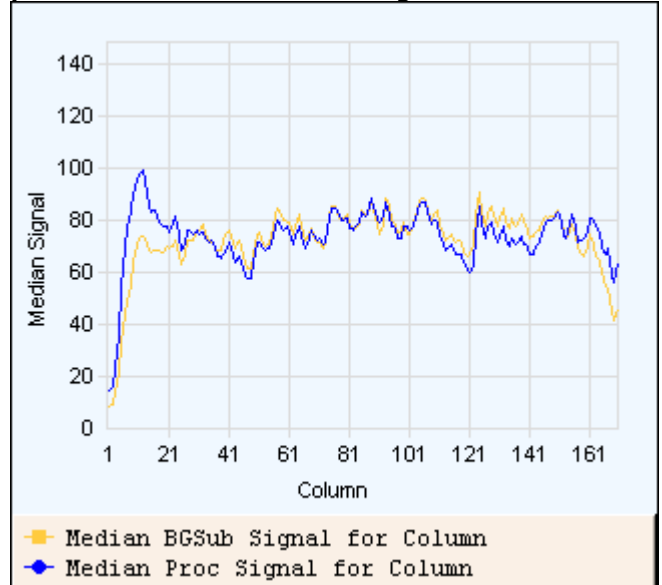
Agilent SpikeIns Signal Statistics

Probe Name	Log (Relative Conc.)	Median (Log Proc. Sig.)	% CV	StdDev
(+)E1A_r60_3	0.30	0.93	46.00	0.22
(+)E1A_r60_a104	1.30	0.50	56.48	0.19
(+)E1A_r60_a107	2.30	1.31	34.32	0.18
(+)E1A_r60_a135	3.30	2.09	27.91	0.26
(+)E1A_r60_a20	3.83	2.37	29.65	0.27
(+)E1A_r60_a22	4.30	3.08	32.36	0.27
(+)E1A_r60_a97	4.82	3.72	26.23	0.23
(+)E1A_r60_n11	5.30	4.28	25.49	0.16
(+)E1A_r60_n9	5.82	4.56	41.47	0.58
(+)E1A_r60_1	6.30	5.17	26.12	0.21

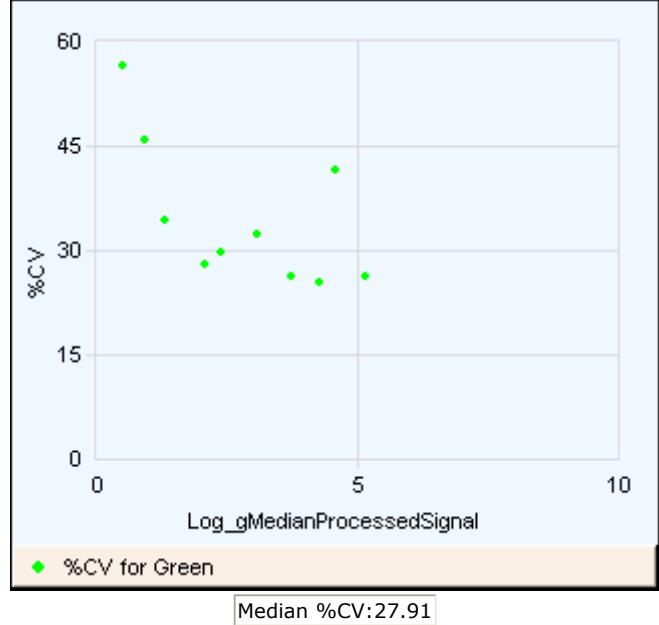
Spatial Distribution of Median Signals for each Row



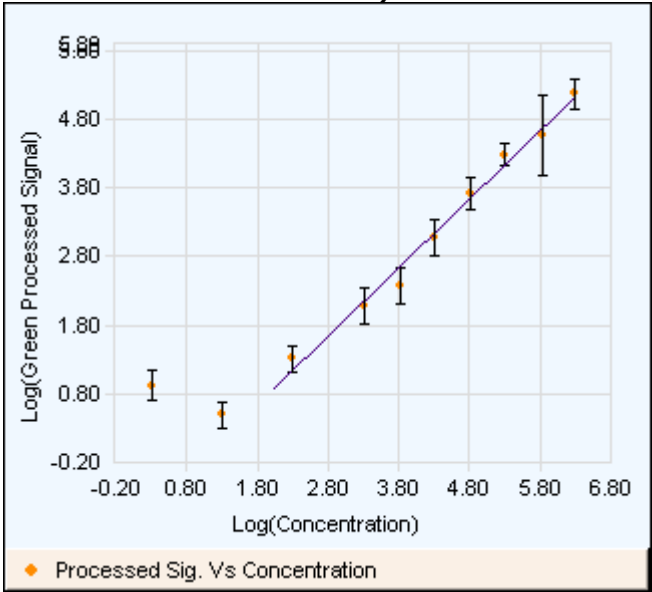
Spatial Distribution of Median Signals for each Column



Agilent SpikeIns: %CV of Avg. Processed Signal Plot



Agilent SpikeIns: Log(Signal) vs. Log(Relative concentration) Plot



Evaluation Metrics for GE1_QCMT_Sep09 :

Good (8) ; Evaluate (2)

Metric Name	Value	Excellent	Good	Evaluate
IsGoodGrid	1.00		>1	<1
AnyColorPrcntFeatNonUn...	0.03		<1	>1
gNegCtrlAveNetSig	30.25		<40	>40
gNegCtrlAveBGSubSig	-3.68		-10 to 5	<-10 or >5
gNegCtrlSDevBGSubSig	2.43		<10	>10
gSpatialDetrendRMSFilt...	2.95		<15	>15
gNonCtrlMedCVProcSign...	23.69		0 to 8	<0 or >8
gE1aMedCVProcSignal	27.91		0 to 8	<0 or >8
absGE1E1aSlope	1.00		0.90 to 1.20	<0.90 or >1.20
DetectionLimit	1.15		0.01 to 2	<0.01 or >2

◆ Excellent ◆ Good ◆ Evaluate

Agilent Spike-In Concentration-Response Statistics

Linear Range Statistics:

Low Signal	0.89
High Signal	5.76
Low Relative Concentration	2.05
High Relative Concentration	6.95
Slope	1.00
R^2 Value	0.99

Signal Detection Limit Statistics

Saturation Point	5.89
Low Threshold	0.58
Low Threshold Error	0.34
Spike-In Detection Limit	1.15