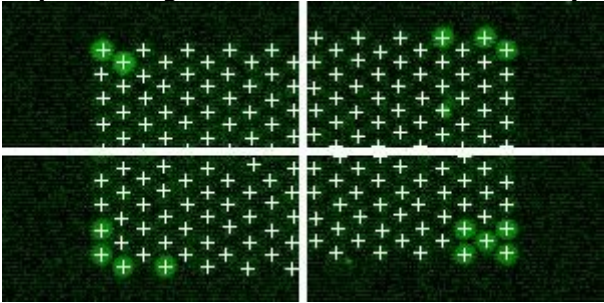


QC Report - Agilent Technologies : 1 Color Gene Expression

Date	Friday, March 04, 2011 - 16:01	Grid	027516_D_F_20100501
Image	US81603235_252751610048_S01 [1_4]	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	2(Green)
Sample(red/green)		Saturation Value	778048 (g)

Spot Finding of the Four Corners of the Array

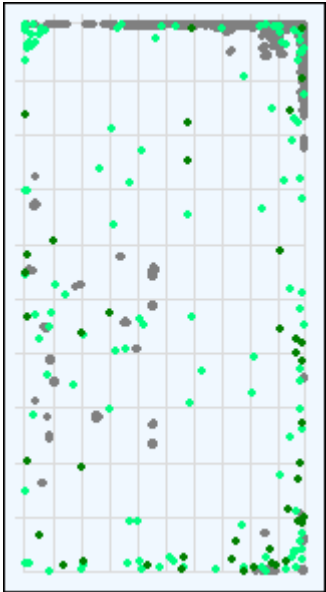


Grid Normal

Feature	Local Background	
	Green	Green
Non Uniform	42	0
Population	124	1249

Spatial Distribution of All Outliers on the Array

1064 rows x 170 columns



FeatureNonUnif (Green) = 42(0.02%)

GeneNonUnif (Green) = 33 (0.019 %)

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

Net Signal Statistics

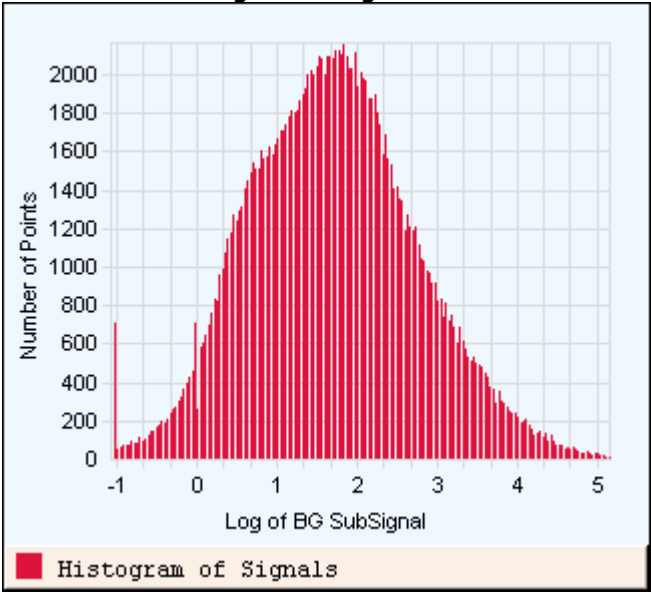
Agilent SpikeIns: Green

# Saturated Features	0
99% of Sig. Distrib.	230690
50% of Sig. Distrib.	489
1% of Sig. Distrib.	21

Non-Control probes: Green

# Saturated Features	0
99% of Sig. Distrib.	12279
50% of Sig. Distrib.	53
1% of Sig. Distrib.	20

Histogram of Signals Plot



Features (NonCtrl) with BGSubSignal < 0: 18406 (Green)

Negative Control Stats

Green

Average Net Signals	21.54
StdDev Net Signals	2.09
Average BG Sub Signal	-2.49
StdDev BG Sub Signal	1.92

Local Bkg (inliers)

Green

Number	179631
Avg	19.38
SD	1.46

Foreground Surface Fit

Green

RMS_Fit	0.97
RMS_Resid	2.12
Avg_Fit	29.70

Multiplicative Surface Fit

Green

RMS_Fit	0.29
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Reproducibility: %CV for Replicated Probes

Median %CV Signal (inliers)

Non-Control
probes

Agilent SpikeIns

Green

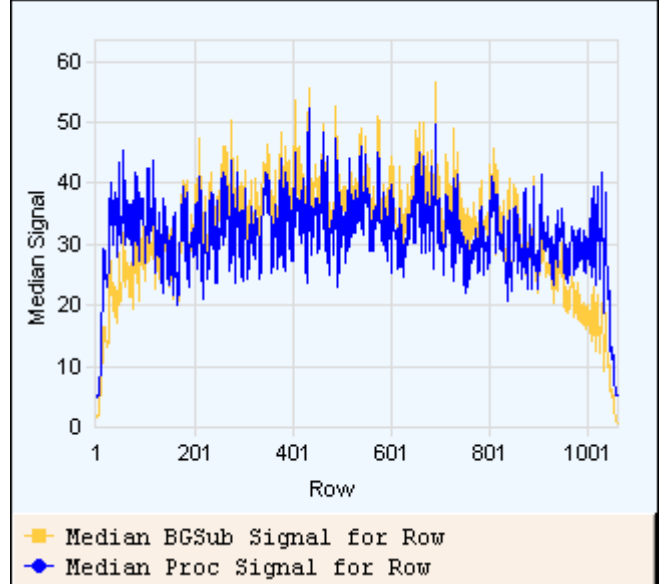
Green

BGSubSignal	28.66	32.84
ProcessedSignal	20.53	19.50

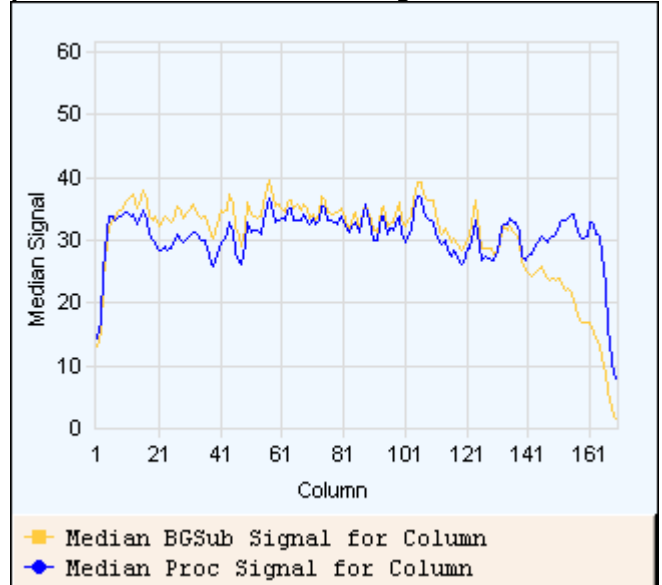
Agilent SpikeIns Signal Statistics

Probe Name	Log (Relative Conc.)	Median (Log Proc. Sig.)	% CV	StdDev
(+)E1A_r60_3	0.30	1.04	31.50	0.17
(+)E1A_r60_a104	1.30	0.53	45.31	0.19
(+)E1A_r60_a107	2.30	1.52	23.17	0.12
(+)E1A_r60_a135	3.30	2.28	18.52	0.10
(+)E1A_r60_a20	3.83	2.55	23.92	0.23
(+)E1A_r60_a22	4.30	3.24	15.16	0.09
(+)E1A_r60_a97	4.82	3.85	19.50	0.13
(+)E1A_r60_n11	5.30	4.43	15.69	0.16
(+)E1A_r60_n9	5.82	4.65	31.00	0.36
(+)E1A_r60_1	6.30	5.21	29.00	0.26

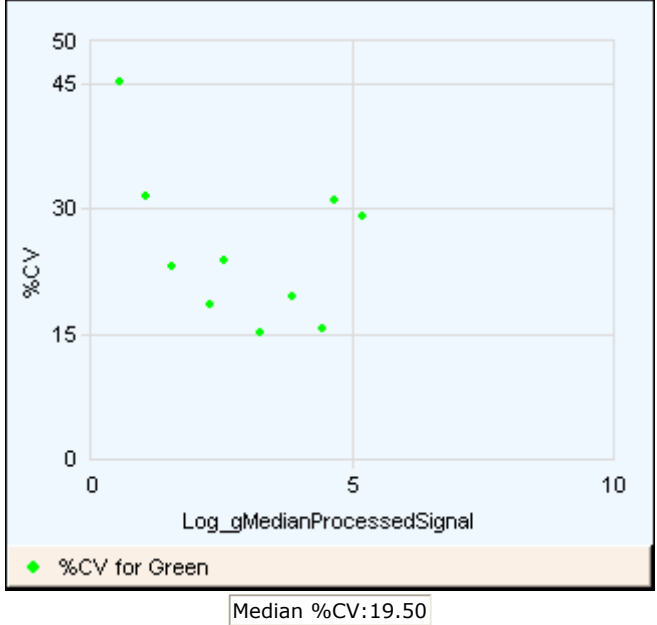
Spatial Distribution of Median Signals for each Row



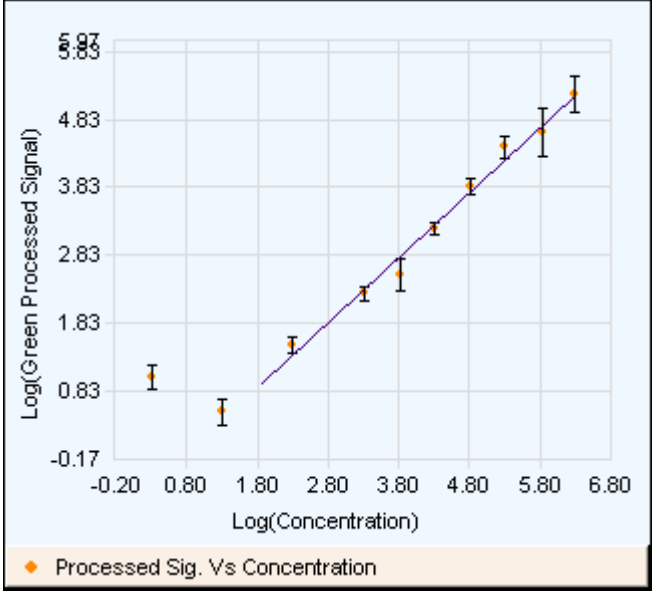
Spatial Distribution of Median Signals for each Column



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...	0.02		<1	>1
gNegCtrlAveNetSig	21.54		<40	>40
gNegCtrlAveBGSubSig	-2.49		-10 to 5	<-10 or >5
gNegCtrlSDevBGSubSig	1.92		<10	>10
gSpatialDetrendRMSFilt...	2.12		<15	>15
gNonCtrlMedCVProcSign...	20.53		0 to 8	<0 or >8
gE1aMedCVProcSignal	19.50		0 to 8	<0 or >8
absGE1E1aSlope	0.96		0.90 to 1.20	<0.90 or >1.20
DetectionLimit	1.19		0.01 to 2	<0.01 or >2

◆ Excellent ◆ Good ◆ Evaluate

Agilent Spike-In Concentration-Response Statistics
Linear Range Statistics:

Low Signal	0.96
High Signal	5.75
Low Relative Concentration	1.88
High Relative Concentration	6.89
Slope	0.96
R^2 Value	0.99

Signal Detection Limit Statistics

Saturation Point	5.89
Low Threshold	0.64
Low Threshold Error	0.26
Spike-In Detection Limit	1.19