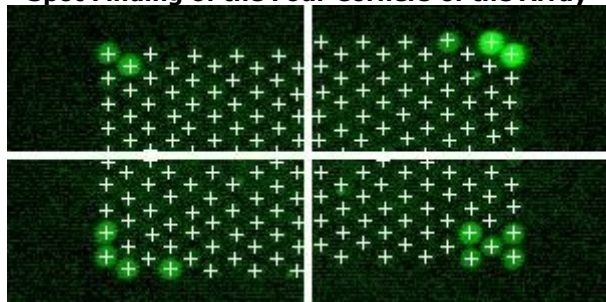


QC Report - Agilent Technologies : 1 Color Gene Expression

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

Spot Finding of the Four Corners of the Array

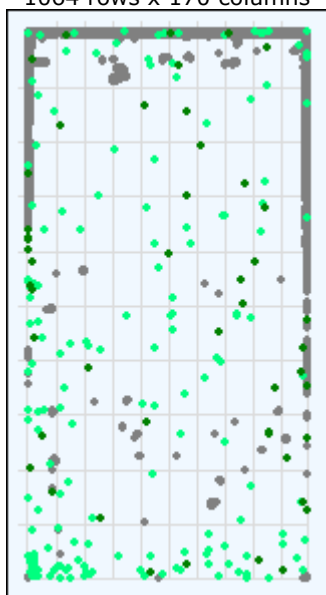


Grid Normal

Feature	Green	Local Background	Green
Non Uniform	48		0
Population	165		3107

Spatial Distribution of All Outliers on the Array

1064 rows x 170 columns



FeatureNonUnif (Green) = 48(0.03%)

GeneNonUnif (Green) = 46 (0.026 %)

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

Net Signal Statistics

Agilent SpikeIns:

Green

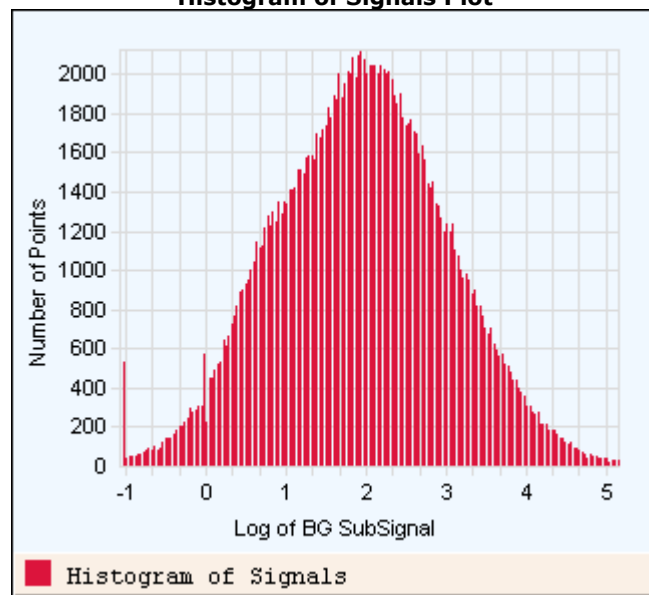
# Saturated Features	0
99% of Sig. Distrib.	228590
50% of Sig. Distrib.	475
1% of Sig. Distrib.	26

Non-Control probes:

Green

# Saturated Features	0
99% of Sig. Distrib.	16890
50% of Sig. Distrib.	83
1% of Sig. Distrib.	24

Histogram of Signals Plot



Features (NonCtrl) with BGSubSignal < 0: 16798 (Green)

Negative Control Stats

Green

Average Net Signals	24.87
StdDev Net Signals	2.14
Average BG Sub Signal	-3.29
StdDev BG Sub Signal	2.05

Local Bkg (inliers)

Green

Number	177773
Avg	25.35
SD	1.70

Foreground Surface Fit

Green

RMS_Fit	0.70
RMS_Resid	2.26
Avg_Fit	33.85

Multiplicative Surface Fit

Green

RMS_Fit	0.24
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Reproducibility: %CV for Replicated Probes

Median %CV Signal (inliers)

Non-Control
probes

Agilent SpikeIns

Green

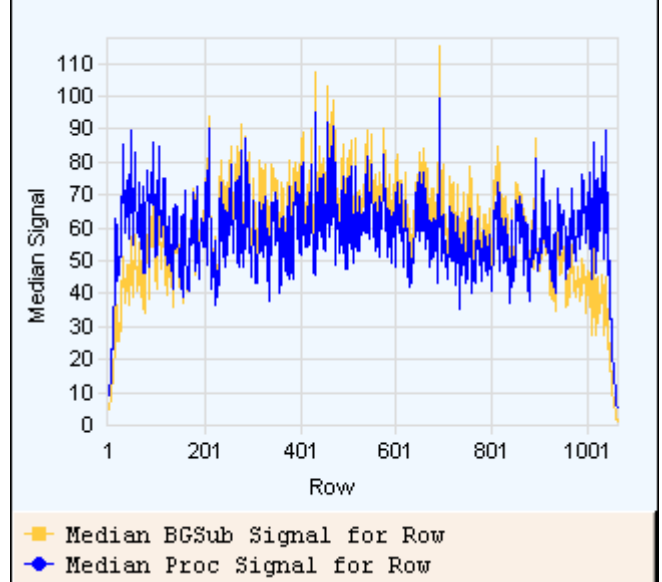
Green

BGSubSignal	27.47	29.63
ProcessedSignal	23.38	22.00

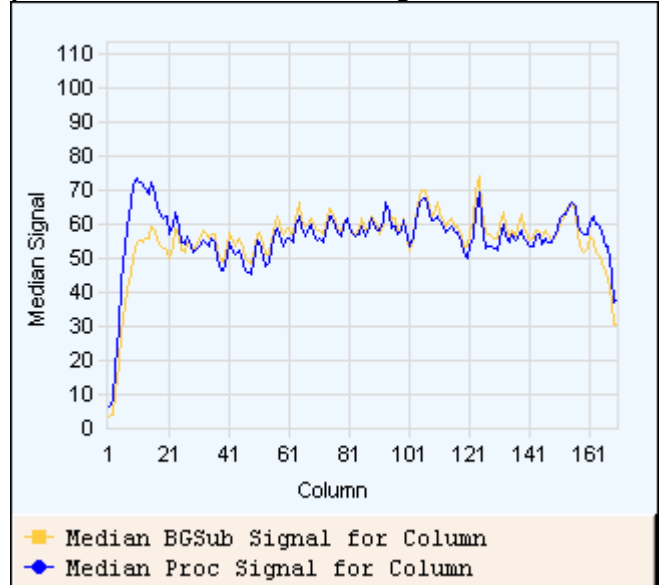
Agilent SpikeIns Signal Statistics

Probe Name	Log (Relative Conc.)	Median (Log Proc. Sig.)	% CV	StdDev
(+)E1A_r60_3	0.30	0.82	52.72	0.25
(+)E1A_r60_a104	1.30	0.54	60.01	0.21
(+)E1A_r60_a107	2.30	1.42	31.79	0.21
(+)E1A_r60_a135	3.30	2.23	22.00	0.22
(+)E1A_r60_a20	3.83	2.55	22.03	0.13
(+)E1A_r60_a22	4.30	3.25	21.01	0.18
(+)E1A_r60_a97	4.82	3.85	16.31	0.19
(+)E1A_r60_n11	5.30	4.41	23.97	0.16
(+)E1A_r60_n9	5.82	4.69	31.39	0.55
(+)E1A_r60_1	6.30	5.26	19.81	0.11

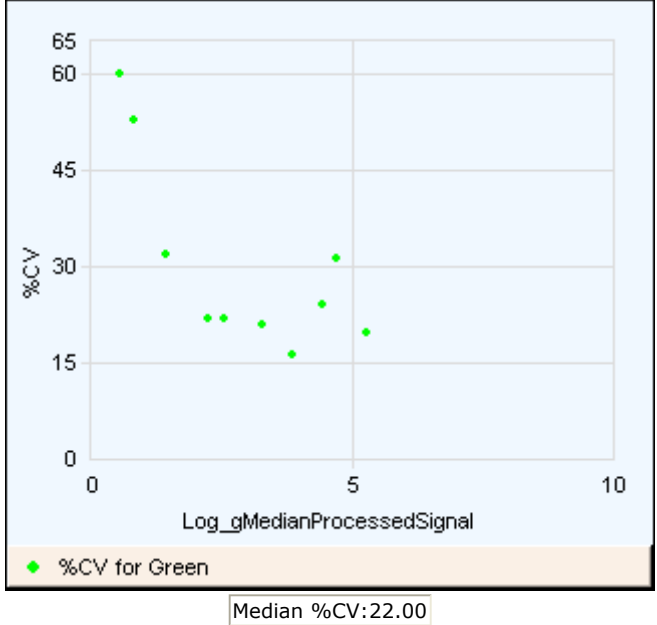
Spatial Distribution of Median Signals for each Row



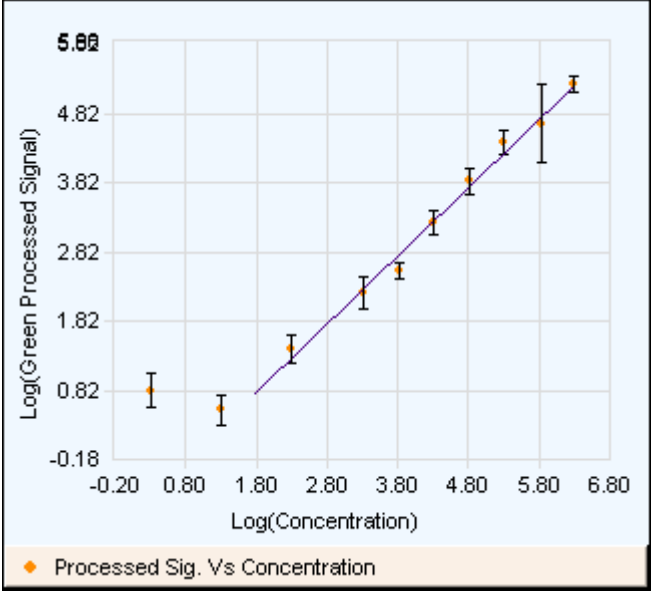
Spatial Distribution of Median Signals for each Column



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	24.87		<40	>40
gNegCtrlAveBGSubSig	-3.29		-10 to 5	<-10 or >5
gNegCtrlSDevBGSubSig	2.05		<10	>10
gSpatialDetrendRMSFilt...	2.26		<15	>15
gNonCtrlMedCVProcSign...	23.38		0 to 8	<0 or >8
gE1aMedCVProcSignal	22.00		0 to 8	<0 or >8
absGE1E1aSlope	0.99		0.90 to 1.20	<0.90 or >1.20
DetectionLimit	1.04		0.01 to 2	<0.01 or >2

◆ Excellent ◆ Good ◆ Evaluate

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

Low Signal	0.79
High Signal	5.77
Low Relative Concentration	1.79
High Relative Concentration	6.84
Slope	0.99
R^2 Value	0.99

Signal Detection Limit Statistics

Saturation Point	5.89
Low Threshold	0.49
Low Threshold Error	0.33
Spike-In Detection Limit	1.04