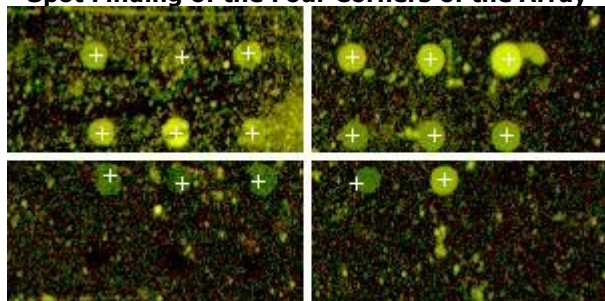


# QC Report - Agilent Technologies : 2 Color Gene Expression

|            |  |                        |                  |
|------------|--|------------------------|------------------|
| Date       | Monday, August 20, 2007 - 13:40                | BG Method              | Minimum Feature  |
| Image      | US45102971_SLOT28_S01_Cropped                  | Background Detrend     | Off              |
| Protocol   | GE2-NonAT_95_Feb07 (Read Only)                 | Multiplicative Detrend | False            |
| User Name  | jaudalladmin                                   | Dye Norm               | Lowess           |
| Grid       | MS_72_75_Rep3_SLOT28_S01_grid (from grid_file) | Linear DyeNorm Factor  | 1(Red) 1(Green)  |
| FE Version | 9.5.3.1  | Additive Error         | 30(Red)30(Green) |

## Spot Finding of the Four Corners of the Array



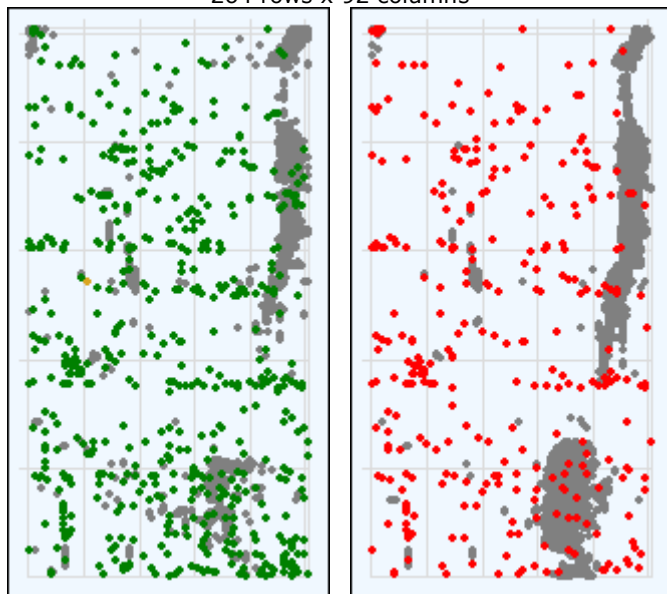
Evaluate Grid

| Feature | Local Background |       |
|---------|------------------|-------|
|         | Red              | Green |

|             | Red | Green | Red  | Green |
|-------------|-----|-------|------|-------|
| Non Uniform | 306 | 537   | 29   | 63    |
| Population  | 0   | 0     | 1643 | 897   |

## Spatial Distribution of All Outliers on the Array

264 rows x 92 columns



# FeatureNonUnif (Red or Green) = 567(2.48%)

# GeneNonUnif (Red or Green) = 567 (2.487 %)

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

## Local Bkg (inliers)

Red      Green

## Net Signal Statistics

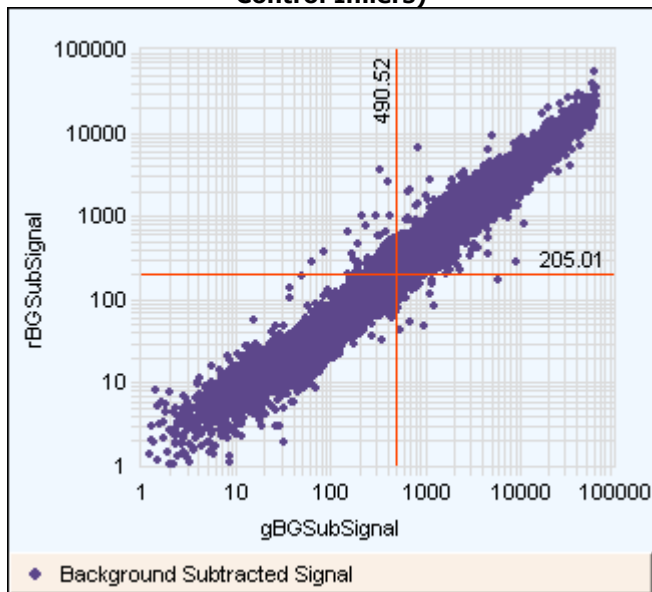
### Non-Control probes:

|                      | Red   | Green |
|----------------------|-------|-------|
| # Saturated Features | 27    | 112   |
| 99% of Sig. Distrib. | 12752 | 34063 |
| 50% of Sig. Distrib. | 240   | 506   |
| 1% of Sig. Distrib.  | 41    | 22    |

### Negative Control Stats

|                       | Red  | Green |
|-----------------------|------|-------|
| Average Net Signals   | 0.00 | 0.00  |
| StdDev Net Signals    | 0.00 | 0.00  |
| Average BG Sub Signal | 0.00 | 0.00  |
| StdDev BG Sub Signal  | 0.00 | 0.00  |

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



# Features (NonCtrl) with BGSubSignals < 0: 14 (Red); 15 (Green)

|        |       |       |
|--------|-------|-------|
| Number | 21184 | 21929 |
| Avg    | 78.55 | 63.67 |
| SD     | 3.58  | 3.81  |

**Foreground Surface Fit**

Red Green

|           |       |       |
|-----------|-------|-------|
| RMS_Fit   | 4.46  | 9.30  |
| RMS_Resid | 6.38  | 15.53 |
| Avg_Fit   | 12.71 | 16.25 |

**Reproducibility: %CV for Replicated Probes**

Median %CV Signal (inliers)  
 Non-Control probes  
 Red Green

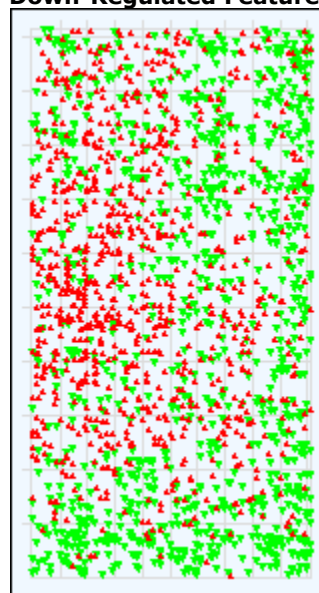
|                 |       |       |
|-----------------|-------|-------|
| BGSubSignal     | -1.00 | -1.00 |
| ProcessedSignal | NA    | NA    |

**Array Uniformity: LogRatios**

Non-Control

|                |      |
|----------------|------|
| AbsAvgLogRatio | 0.00 |
| AverageS/N     | 0.00 |

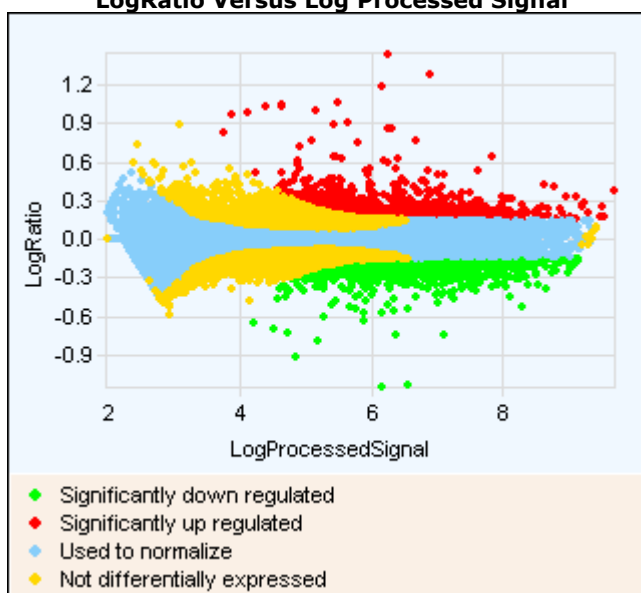
**Spatial Distribution of Significantly Up-Regulated and Down-Regulated Features**



#Up-Regulated:944 (Red) ; #Down-Regulated:997 (Green)

▲ Up-Regulated □ Down-Regulated

**LogRatio Versus Log Processed Signal**



- ◆ Significantly down regulated
- ◆ Significantly up regulated
- ◆ Used to normalize
- ◆ Not differentially expressed