



Certificate of Analysis

Date: 03/011/13

Customer: Xiaobo Yu

Product: MICRO-ARRAY SLIDES TB

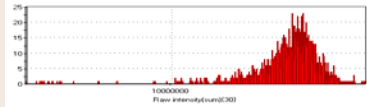
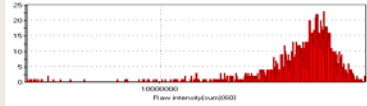
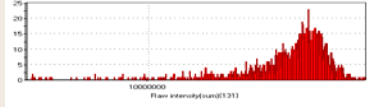
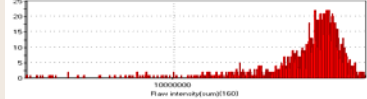
Batch Number (270 Slide Batch- 2 QC Slides per Batch): 02/28/13

Research Technician: Jennifer Vioria

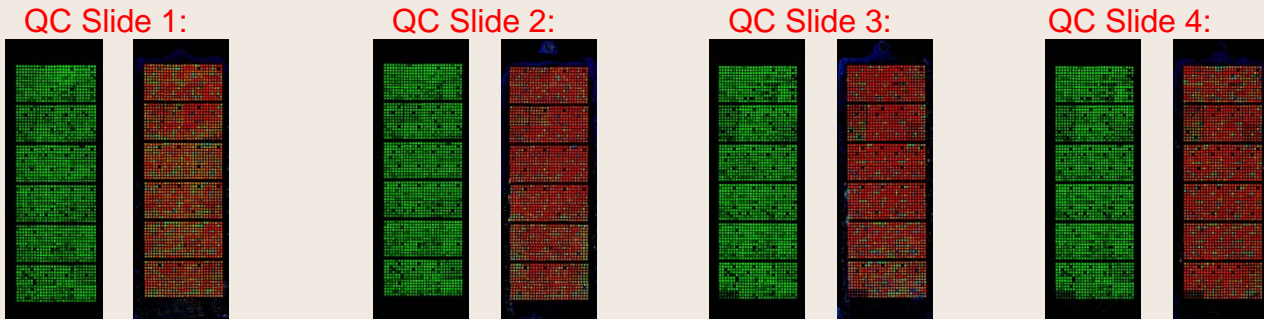
Positive Controls:

	Visible?		RT Initials
	Yes	No	
Control 1: P-CITE GST	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Control 2: HIgG	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Control 3: EBNA	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Control 4: P53	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Control 5:	<input type="checkbox"/>	<input type="checkbox"/>	

Expression Levels:

	% Acceptable levels of expression	Histogram	RT Initials
QC Slide 1 (Slide# 30):	99.9		
QC Slide 2 (Slide# 60):	99.9		
QC Slide 3 (Slide# 131):	98.9		
QC Slide 4 (Slide# 160):	98.8		

Expression/Pico green Images:

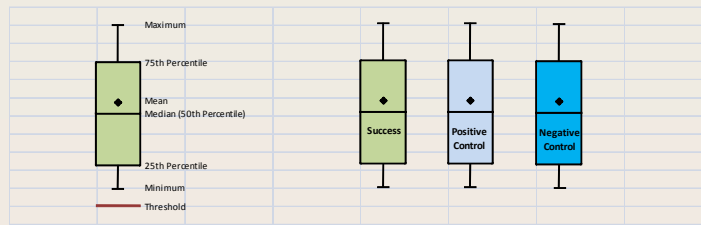
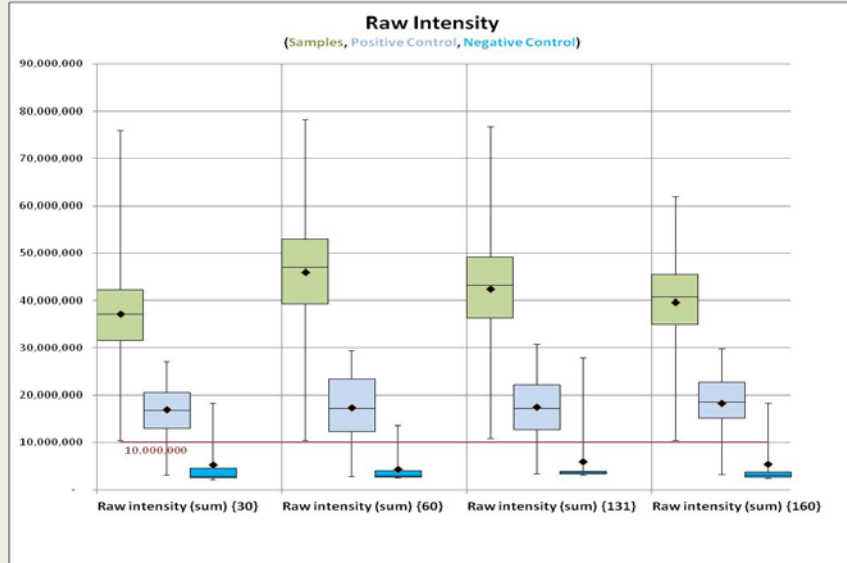


Definitions: Acceptable level= Raw Intensity above 10 million:



Data Summary

Max Spot Number: 2324				
Default Threshold: 10,000,000				
	Raw intensity (sum) {30}	Raw intensity (sum) {60}	Raw intensity (sum) {131}	Raw intensity (sum) {160}
Slide Threshold:	10,000,000	10,000,000	10,000,000	10,000,000
Samples				
Count:	2072	2072	2052	2050
% Success:	99.9%	99.9%	98.9%	98.8%
% of Tot:	89.2%	89.2%	88.3%	88.2%
Mean:	37,119,711	46,047,176	42,419,825	39,618,660
Stdev:	8,562,804	10,464,870	10,065,264	8,649,817
Max:	75,952,227	78,339,513	76,829,606	62,014,895
75th Percentile:	42,238,829	52,987,358	49,204,101	45,504,981
Median:	37,157,656	46,959,515	43,242,009	40,661,419
25th Percentile:	31,624,894	39,350,605	36,347,757	34,857,302
Min:	10,434,854	10,502,569	10,896,606	10,425,423
Fail				
Count:	2	2	22	24
% Fail:	0.1%	0.1%	1.1%	1.2%
% of Tot:	0.1%	0.1%	0.9%	1.0%
Mean:	7,637,530	8,251,456	7,097,740	7,363,814
Stdev:	2,730,812	1,565,684	1,565,807	1,311,473
Max:	9,568,505	9,358,561	9,899,242	9,996,431
75th Percentile:	8,603,017	8,805,008	7,934,080	8,074,461
Median:	7,637,530	8,251,456	6,800,957	7,196,630
25th Percentile:	6,672,042	7,697,903	5,852,910	6,589,195
Min:	5,706,554	7,144,350	4,869,480	4,951,304
Positive_Control				
Count:	60	60	60	60
% of Tot:	2.6%	2.6%	2.6%	2.6%
Mean:	16,992,066	17,369,319	17,564,832	18,330,033
Stdev:	5,041,843	7,023,901	6,492,899	5,566,687
Max:	27,117,307	29,481,241	30,861,603	29,843,648
75th Percentile:	20,603,224	23,506,270	22,210,227	22,789,342
Median:	16,762,246	17,183,524	17,284,536	18,563,824
25th Percentile:	13,151,339	12,392,761	12,838,725	15,152,410
Min:	3,061,660	2,916,015	3,418,350	3,290,080
Negative_Control				
Count:	19	19	19	19
% of Tot:	0.8%	0.8%	0.8%	0.8%
Mean:	5,293,155	4,347,071	5,997,068	5,538,375
Stdev:	4,916,318	2,900,060	6,032,706	5,387,854
Max:	18,369,042	13,701,961	27,975,673	18,380,966
75th Percentile:	4,707,036	4,151,295	3,982,437	3,851,933
Median:	2,891,366	3,046,646	3,653,815	3,059,641
25th Percentile:	2,635,960	2,776,325	3,427,857	2,725,322
Min:	2,204,241	2,585,777	3,186,017	2,454,415
Unknown				
Count:	171	171	171	171
% of Tot:	7.4%	7.4%	7.4%	7.4%
Mean:	7,291,518	8,488,592	8,445,432	7,447,464
Stdev:	9,841,448	12,176,892	11,143,723	11,004,958
Max:	39,233,545	48,212,259	50,354,310	50,963,393
75th Percentile:	4,145,840	4,295,068	4,532,109	4,164,146
Median:	2,692,011	2,905,356	3,476,439	2,902,046
25th Percentile:	2,492,419	2,693,952	3,250,139	2,669,991
Min:	2,138,324	2,412,638	2,963,012	2,295,351
All				
Count:	2324	2324	2324	2324
% of Tot:	100.0%	100.0%	100.0%	100.0%
Mean:	34,119,733	42,169,774	38,646,142	36,090,160
Stdev:	12,217,969	15,339,416	14,465,570	13,098,537
Max:	75,952,227	78,339,513	76,829,606	62,014,895
75th Percentile:	41,467,910	52,118,610	48,333,146	44,906,880
Median:	35,966,516	45,479,348	41,906,037	39,398,586
25th Percentile:	29,130,876	35,640,558	32,621,940	31,138,216
Min:	2,138,324	2,412,638	2,963,012	2,295,351



Slide Correlation

Within Batches

Between Batches

