Intro

Basic Endpoint Protocol

Use this protocol for endpoint assays that have unknowns that will have concentrations interpolated from a standard curve. Modify the instrument setup for the wavelength(s) of interest for your assay. You may also modify the template to include additional standards, unknowns, and controls. To make modifications, click the plate section to make it active.

READER SUITABILITY:
SpectraMax M2, M2e, M3, M4, M5, and M5e.
SpectraMax Plus 384, 190, SpectraMax 190, 340PC 384 and VersaMax
Emax and Vmax

PROTOCOL REVISION HISTORY:
03/02/11 - Imported from 5.4 and edited. (ELM)
10/11/11 - Updated with the additional instruments supported in SMP 6.1

Plate1

	1	2	3	4	5	6	7	8	9	10	11	12
A												
B												
C												
D												
E												
F												
G												
H												

Settings Information
- Endpoint
- Absorbance
  - Lm1 405
- More Settings
  - Shake Off
  - Calibrate On
  - Column Priority

Reduction Settings
Optical Density
Wavelength Combination : !Lm1

Standards

Sample	Conc	BackCalcConc	Wells	Value	MeanValue	SD	CV

Smallest standard value:

Largest standard value:

Unknowns

Sample	Wells	Value	R	Result	MeanResult	SD	CV

R - Outside standard range

Unk_Dilution

Sample	Wells	Value	R	Result	MeanResult	SD	CV	Dilution	AdjResult

R - Outside standard range

Mean Adjusted Result:

Control

Sample	Wells	Sample#	Values	MeanValue

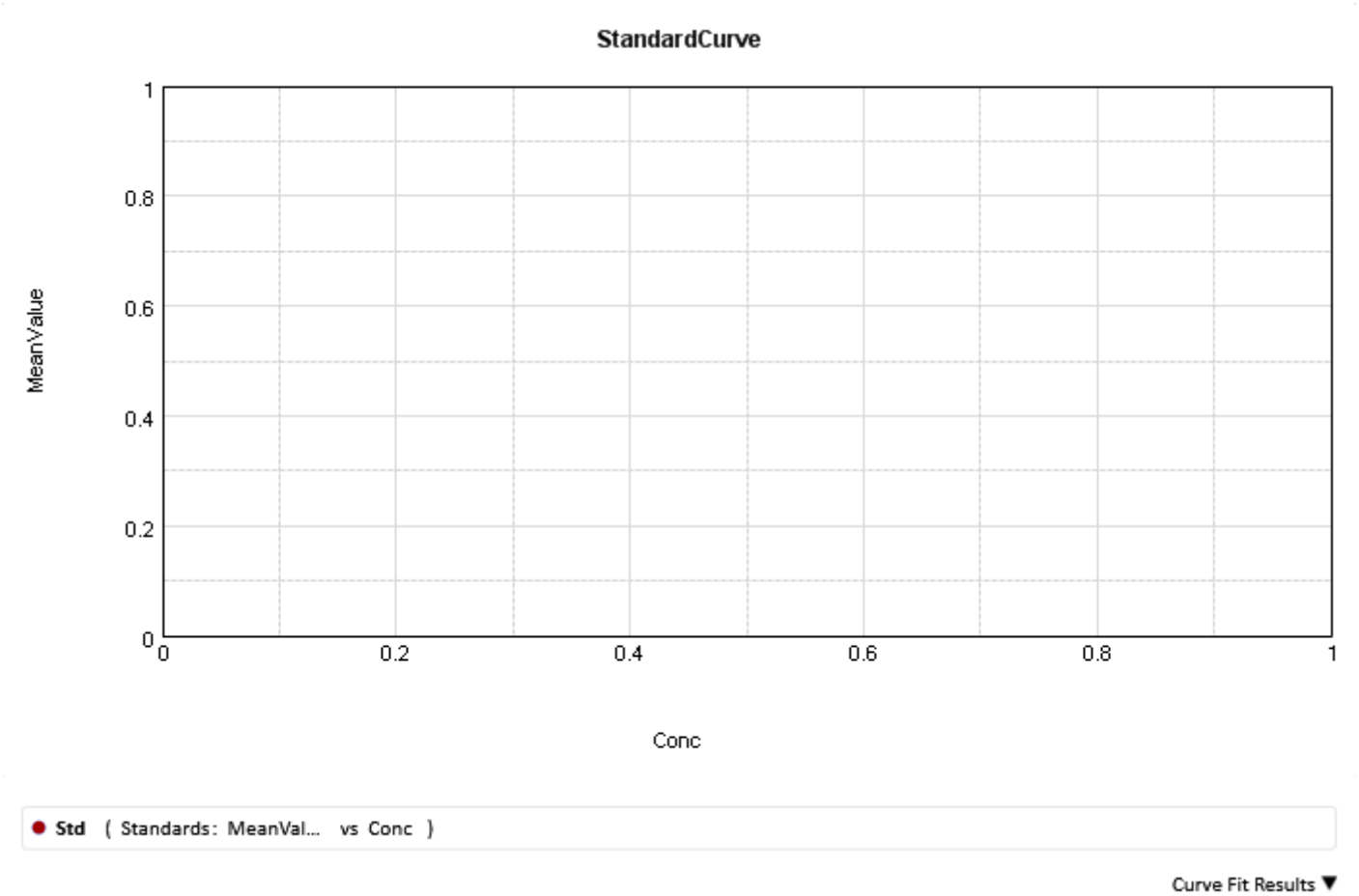

StandardCurve
MeanValue
1
0.8
0.6
0.4
0.2
0
0
0.2
0.4
0.6
0.8
1
Conc
Std (Standards: MeanVal... vs Conc)
Curve Fit Results ▼

Plate1

	1	2	3	4	5	6	7	8	9	10	11	12
A	1.7e6	2.6e6	7.3e6	2.0e6	1.7e6	2.5e7	2.2e7	1.3e7	1.4e7	1.7e7	-243.2	363.81
B	8.9e5	1.6e6	7.8e5	6.1e5	2.3e6	1.7e7	1.6e7	9.9e6	5.7e6	8.4e6	-236.2	16.813
C	3.2e6	1.6e6	2.2e4	1.8e6	2.9e6	1.4e7	1.2e7	6.1e6	4.6e6	5.7e6	-388.2	11.813
D	2.9e6	4.8e6	2.5e4	7.2e5	2.5e6	1.8e7	6.1e6	4.6e6	4.6e6	3.7e6	129.81	862.81
E	4.1e6	3.7e6	4.6e6	6.4e5	1.0e6	9.7e6	9.3e6	2.8e6	2.3e6	3.1e6	539.81	-202.2
F	4.2e4	1.3e6	7.3e6	2.0e6	2.8e6	3.6e6	3.0e6	2.5e6	1.8e6	2.5e6	-292.2	-85.19
G	2.8e6	2.6e6	3.0e6	2.4e6	3.8e5	5.7e6	5.8e6	3.0e6	3.1e6	2.1e6	-431.2	145.81
H	4.3e6	2.4e6	4.6e6	2.6e6	6.5e6	8.7e5	3.1e6	2.9e6	2.6e6	1.8e6	-43.19	-149.2

Reduction Settings
Group Blank Used (Raw Values)
Wavelength Combination : !Lm1

Settings Information
Endpoint
⊟ Fluorescence
Lm1 485, 535
Slide(s) Ex1, Em1
⊟ More Settings
Shake Off
ReadOrder Row
Show Optimizer On
⊟ PMT and Optics
Integration Time 400 ms
Read from Top
Read Height 1.00 mm

Read Information
FilterMax F5
ROM vV1.1 b32 10.12.2010
Start Read : 12:03 PM
11/21/2014

Mean Temperature : 24.5 °C

Standards

Sample	Conc	BackCalcConc	Wells	Value	MeanValue	SD	CV
01	109....	159.290	A6	2524...	18159491....	53...	29.6
		137.542	A7	2218...			
		71.754	A8	1292...			
		77.296	A9	1370...			
		98.729	A10	1672...			
02	64.200	101.772	B6	1715...	11394120....	49...	43.0
		92.314	B7	1582...			
		50.203	B8	9895...			
		20.674	B9	5739...			
		39.305	B10	8361...			
03	38.200	80.816	C6	1420...	8436064.813	42...	50.0
		62.365	C7	1160...			
		23.134	C8	6085...			
		12.806	C9	4631...			
		20.061	C10	5652...			
04	21.600	105.095	D6	1762...	7319594.612	58...	79.6
		23.296	D7	6108...			
		12.823	D8	4634...			
		12.291	D9	4559...			
		6.012	D10	3675...			
05	13.900	48.839	E6	9703...	5420043.013	37...	69.0
		45.954	E7	9297...			
		-0.504	E8	2758...			
		-3.940	E9	2274...			
		1.687	E10	3066...			
06	7.000	5.395	F6	3588...	2697710.212	66...	24.5
		1.492	F7	3039...			
		-2.197	F8	2520...			
		-7.191	F9	1817...			
		-2.176	F10	2523...			
07	4.600	20.379	G6	5697...	3932423.013	17...	43.6
		21.219	G7	5815...			
		1.061	G8	2978...			
		1.974	G9	3107...			
		-5.446	G10	2062...			
08	3.700	-13.905	H6	8722...	2248751.612	91...	40.8
		2.083	H7	3122...			
		0.414	H8	2887...			
		-1.902	H9	2561...			
		-7.315	H10	1799...			

Smallest standard value: 2248751.612

Largest standard value: 18159491.212

Unknowns

Sample	Wells	Value	R	Result	MeanResult	SD	CV
01	A1	1650...	R	-8.377	-8.377	0....	0.0
02	B1	8922...	R	-13.763	-13.763	0....	0.0
03	C1	3242...		2.935	2.935	0....	0.0
04	D1	2850...		0.148	0.148	0....	0.0
05	E1	4130...		9.246	9.246	0....	0.0
06	F1	4169...	R	-19.807	-19.807	0....	0.0
07	G1	2825...		-0.028	-0.028	0....	0.0
08	H1	4262...		10.180	10.180	0....	0.0
09	A2	2558...		-1.922	-1.922	0....	0.0
10	B2	1551...	R	-9.081	-9.081	0....	0.0
11	C2	1615...	R	-8.628	-8.628	0....	0.0
12	D2	4779...		13.858	13.858	0....	0.0
13	E2	3734...		6.431	6.431	0....	0.0
14	F2	1292...	R	-10.921	-10.921	0....	0.0
15	G2	2552...		-1.967	-1.967	0....	0.0
16	H2	2359...		-3.335	-3.335	0....	0.0
17	A3	7285...		31.661	31.661	0....	0.0
18	B3	7791...	R	-14.567	-14.567	0....	0.0
19	C3	2196...	R	-19.947	-19.947	0....	0.0
20	D3	2530...	R	-19.923	-19.923	0....	0.0
21	E3	4565...		12.338	12.338	0....	0.0
22	F3	7274...		31.583	31.583	0....	0.0
23	G3	3016...		1.328	1.328	0....	0.0
24	H3	4646...		12.909	12.909	0....	0.0
25	A4	2008...	R	-5.831	-5.831	0....	0.0
26	B4	6112...	R	-15.760	-15.760	0....	0.0
27	C4	1803...	R	-7.290	-7.290	0....	0.0
28	D4	7241...	R	-14.958	-14.958	0....	0.0
29	E4	6350...	R	-15.591	-15.591	0....	0.0
30	F4	2006...	R	-5.844	-5.844	0....	0.0
31	G4	2415...		-2.942	-2.942	0....	0.0
32	H4	2589...		-1.706	-1.706	0....	0.0
33	A5	1747...	R	-7.687	-7.687	0....	0.0
34	B5	2326...		-3.570	-3.570	0....	0.0
35	C5	2902...		0.522	0.522	0....	0.0
36	D5	2531...		-2.116	-2.116	0....	0.0
37	E5	9958...	R	-13.027	-13.027	0....	0.0
38	F5	2772...		-0.405	-0.405	0....	0.0
39	G5	3793...	R	-17.407	-17.407	0....	0.0
40	H5	6456...		25.771	25.771	0....	0.0

R - Outside standard range

Unk_Dilution

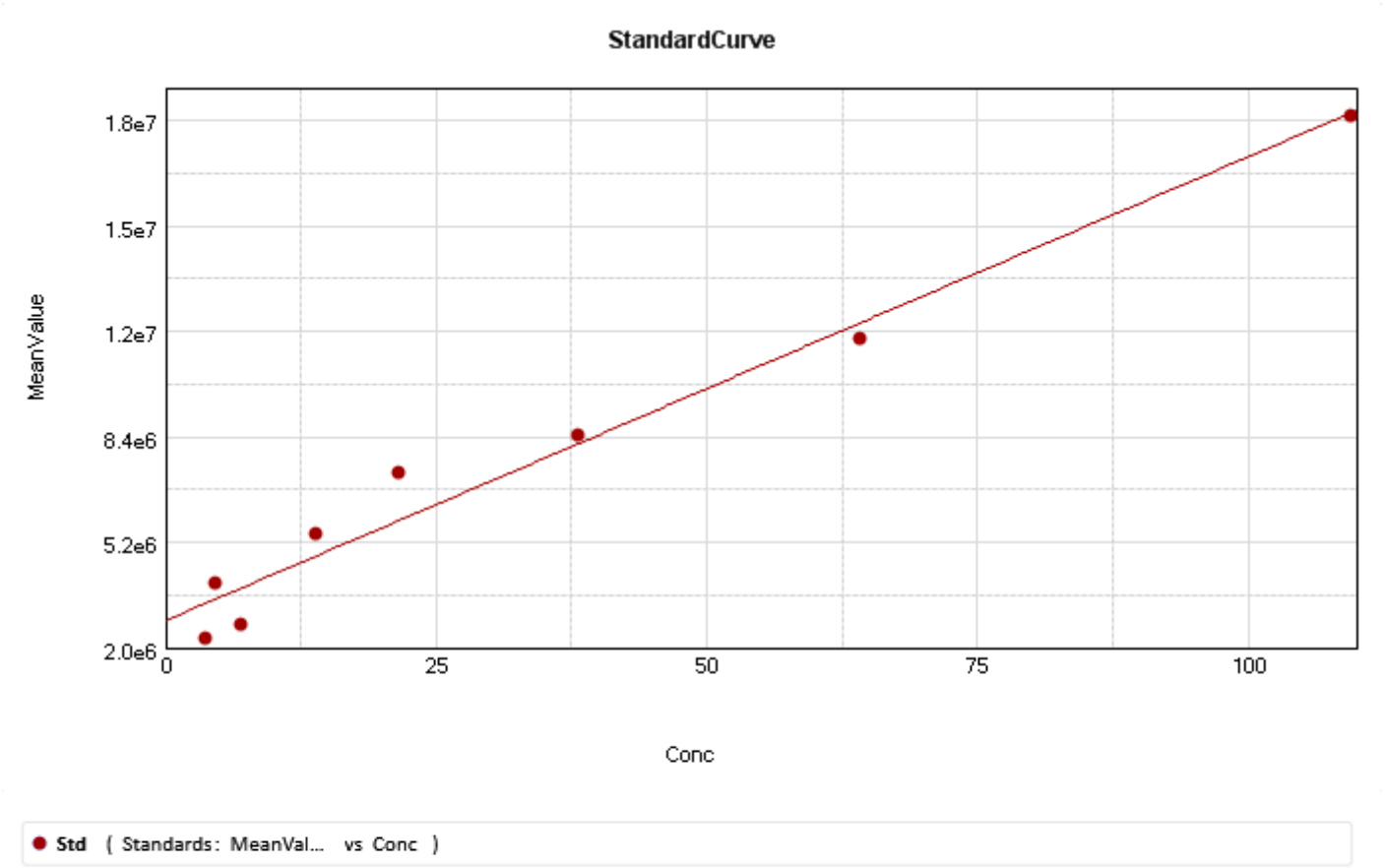
Sample	Wells	Value	R	Result	MeanResult	SD	CV	Dilution	AdjResult

R - Outside standard range

Mean Adjusted Result:

Control

Sample	Wells	Sample#	Values	MeanValue



● **Std** (Standards: MeanVal... vs Conc)

Curve Fit Results ▲

Curve Fit : Linear $y = A + Bx$

	Parameter	Estimated Value	Std. Error	Confidence Interval
Std $R^2 = 0.972$	A	2.83e+6	4.63e+5	[1.70e+6, 3.96e+6]
	B	1.41e+5	9687	[1.17e+5, 1.64e+5]

Plate1

	1	2	3	4	5	6	7	8	9	10	11	12
A	1.2e6	8.3e5	5.3e5	9.7e5	1.8e7	1.5e7	1.2e7	2.1e7	1.6e7	950.21	-315.8	-224.8
B	1.1e6	1.2e6	3.5e5	1.5e6	9.0e6	5.9e6	4.4e6	1.1e7	6.5e6	677.21	50.208	-248.8
C	1.0e6	6.5e5	3.1e5	1.4e4	8.3e6	8.1e6	3.2e6	1.8e7	4.8e6	-427.8	-100.8	-0.792
D	1.4e6	1.8e6	8.8e5	2.7e4	1.0e7	5.8e6	4.5e6	8.7e6	5.3e6	272.21	-67.79	-218.8
E	2.1e6	3.6e6	1.5e6	2.2e6	4.5e6	1.8e6	2.6e6	6.7e6	6.6e6	-609.8	-631.8	-244.8
F	5.7e5	4.9e6	6.6e5	3.7e6	1.5e6	2.2e6	1.0e6	4.7e6	6.4e6	639.21	-531.8	-110.8
G	3.8e5	4.2e6	6.7e5	1.6e6	2.7e6	1.7e6	1.4e6	3.2e6	3.9e6	-468.8	6.208	-83.79
H	7.6e5	9.8e5	1.4e6	3.8e6	2.9e6	1.8e6	9.9e5	2.7e6	3.1e6	1006.2	341.21	344.21

Reduction Settings
Group Blank Used (Raw Values)
Wavelength Combination : !Lm1

Settings Information
Endpoint
Fluorescence
Lm1 485, 535
Slide(s) Ex1, Em1
More Settings
Shake Off
ReadOrder Row
Show Optimizer On
PMT and Optics
Integration Time 400 ms
Read from Top
Read Height 1.00 mm

Read Information
FilterMax F5
ROM vV1.1 b32 10.12.2010
Start Read : 12:12 PM
11/21/2014

Mean Temperature : 25 °C

Standards

Sample	Conc	BackCalcConc	Wells	Value	MeanValue	SD	CV
01	109....	132.736	A5	1833...	16382712....	33...	20.3
		106.652	A6	1523...			
		77.857	A7	1180...			
		151.828	A8	2060...			
		112.646	A9	1594...			
02	64.200	54.417	B5	9020...	7398124.208	26...	36.0
		28.164	B6	5899...			
		15.824	B7	4432...			
		72.198	B8	1113...			
		33.250	B9	6504...			
03	38.200	48.123	C5	8272...	8528611.408	58...	69.0
		47.061	C6	8146...			
		5.247	C7	3174...			
		132.460	C8	1829...			
		18.505	C9	4751...			
04	21.600	63.727	D5	1012...	6896012.608	23...	34.7
		27.492	D6	5819...			
		16.547	D7	4518...			
		51.619	D8	8687...			
		23.348	D9	5326...			
05	13.900	16.482	E5	4510...	4430979.608	22...	50.7
		-6.379	E6	1792...			
		0.146	E7	2568...			
		34.511	E8	6653...			
		34.300	E9	6628...			
06	7.000	-9.214	F5	1455...	3155771.808	22...	72.8
		-3.067	F6	2186...			
		-12.699	F7	1041...			
		18.253	F8	4721...			
		32.158	F9	6374...			
07	4.600	1.571	G5	2737...	2563571.208	10...	40.1
		-7.125	G6	1704...			
		-9.965	G7	1366...			
		5.050	G8	3151...			
		10.993	G9	3858...			
08	3.700	2.556	H5	2854...	2284496.808	86...	37.9
		-6.026	H6	1834...			
		-13.145	H7	9884...			
		0.879	H8	2655...			
		4.522	H9	3088...			

Smallest standard value: 2284496.808

Largest standard value: 16382712.208

Unknowns

Sample	Wells	Value	R	Result	MeanResult	SD	CV
01	A1	1184...	R	-11.497	-11.497	0....	0.0
02	B1	1075...	R	-12.414	-12.414	0....	0.0
03	C1	1024...	R	-12.839	-12.839	0....	0.0
04	D1	1405...	R	-9.639	-9.639	0....	0.0
05	E1	2075...	R	-4.002	-4.002	0....	0.0
06	F1	5666...	R	-16.693	-16.693	0....	0.0
07	G1	3836...	R	-18.232	-18.232	0....	0.0
08	H1	7577...	R	-15.085	-15.085	0....	0.0
09	A2	8326...	R	-14.455	-14.455	0....	0.0
10	B2	1238...	R	-11.039	-11.039	0....	0.0
11	C2	6519...	R	-15.975	-15.975	0....	0.0
12	D2	1799...	R	-6.322	-6.322	0....	0.0
13	E2	3575...		8.616	8.616	0....	0.0
14	F2	4940...		20.100	20.100	0....	0.0
15	G2	4225...		14.080	14.080	0....	0.0
16	H2	9789...	R	-13.224	-13.224	0....	0.0
17	A3	5303...	R	-16.998	-16.998	0....	0.0
18	B3	3451...	R	-18.555	-18.555	0....	0.0
19	C3	3129...	R	-18.826	-18.826	0....	0.0
20	D3	8803...	R	-14.054	-14.054	0....	0.0
21	E3	1540...	R	-8.503	-8.503	0....	0.0
22	F3	6623...	R	-15.887	-15.887	0....	0.0
23	G3	6735...	R	-15.793	-15.793	0....	0.0
24	H3	1395...	R	-9.721	-9.721	0....	0.0
25	A4	9699...	R	-13.300	-13.300	0....	0.0
26	B4	1497...	R	-8.859	-8.859	0....	0.0
27	C4	1408...	R	-21.340	-21.340	0....	0.0
28	D4	2707...	R	-21.231	-21.231	0....	0.0
29	E4	2238...	R	-2.631	-2.631	0....	0.0
30	F4	3749...		10.079	10.079	0....	0.0
31	G4	1634...	R	-7.710	-7.710	0....	0.0
32	H4	3759...		10.166	10.166	0....	0.0

R - Outside standard range

Unk_Dilution

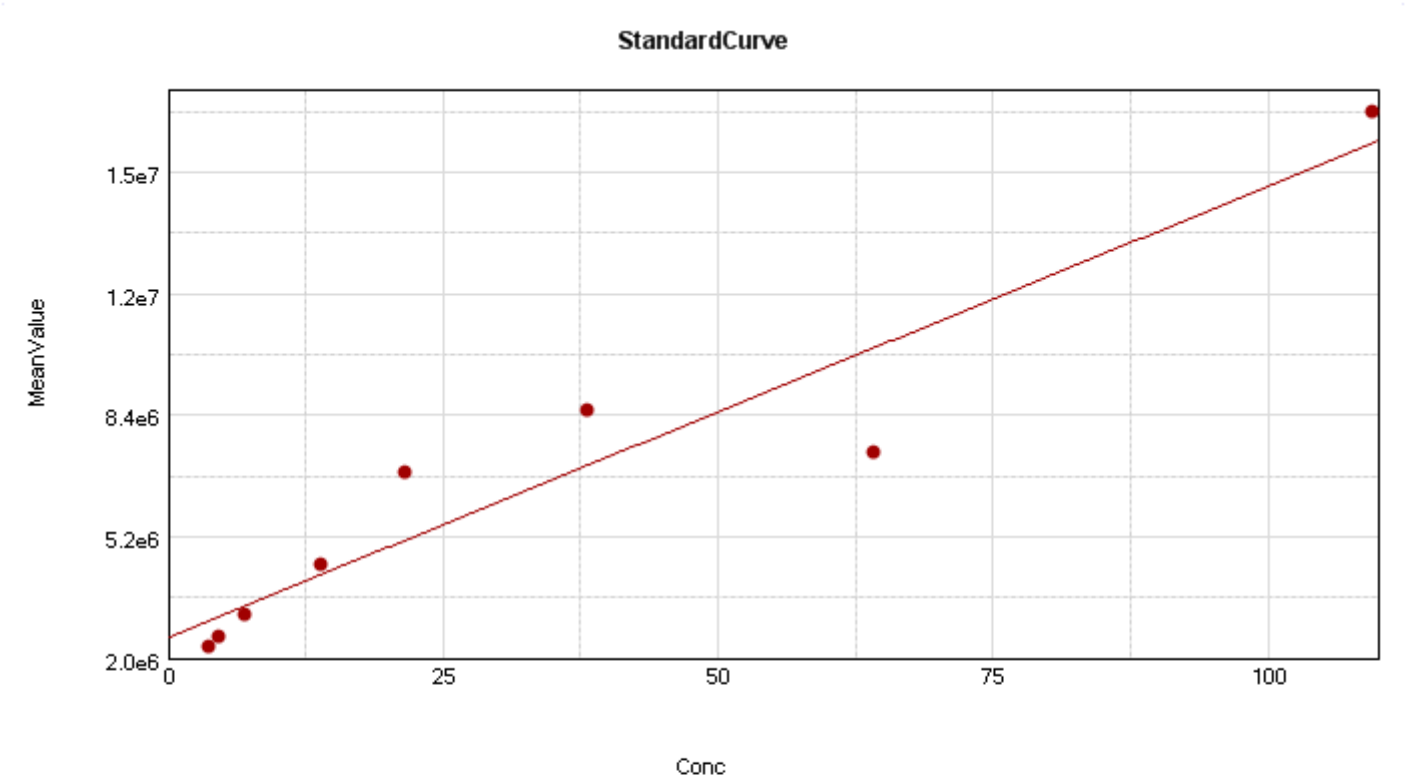
Sample	Wells	Value	R	Result	MeanResult	SD	CV	Dilution	AdjResult

R - Outside standard range

Mean Adjusted Result:

Control

Sample	Wells	Sample#	Values	MeanValue



● **Std** (Standards: MeanVal... vs Conc)

Curve Fit Results ▲

Curve Fit : Linear $y = A + Bx$

	Parameter	Estimated Value	Std. Error	Confidence Interval
Std $R^2 = 0.904$	A	2.55e+6	7.56e+5	[7.00e+5, 4.40e+6]
	B	1.19e+5	1.58e+4	[8.02e+4, 1.58e+5]

Plate1

	1	2	3	4	5	6	7	8	9	10	11	12
A	8.9e5	1.2e6	7.0e6	8.5e5	1.3e5	1.3e7	1.5e7	5.3e6	9.5e6	2.1e7	1.7e7	14.125
B	9.5e5	9.1e5	1.1e6	9.9e5	8.6e6	1.3e7	1.7e7	4.9e6	1.2e7	2.1e7	1.3e7	91.125
C	1.3e6	1.1e6	5.1e6	1.5e6	1.0e7	4.8e6	1.3e7	5.1e6	1.1e7	1.2e7	1.4e7	-143.9
D	2.0e5	2.6e5	3.9e6	1.6e6	8.7e6	6.0e6	4.5e6	5.6e6	1.8e7	8.2e6	7.8e6	-37.88
E	7.4e5	1.9e6	4.3e6	1.6e6	7.6e6	4.9e6	6.3e6	6.0e6	1.2e7	5.7e6	4.0e6	358.13
F	3.4e5	8.3e5	3.3e6	2.2e6	6.2e6	7.5e6	1.6e7	6.0e6	2.3e5	7.1e6	3.3e6	-211.9
G	6.6e5	2.0e5	2.2e6	3.0e6	6.6e6	8.0e6	9.8e6	2.9e6	5.6e6	3.2e6	3.6e6	-24.88
H	9.5e5	1.3e5	5.5e6	1.9e6	5.2e6	8.4e6	7.9e6	4.4e6	2.7e6	3.6e6	2.8e6	-44.88

Settings Information

Endpoint
- Fluorescence
  - Lm1 485, 535
  - Slide(s) Ex1, Em1
- More Settings
  - Shake Off
  - ReadOrder Row
  - Show Optimizer On
- PMT and Optics
  - Integration Time 400 ms
  - Read from Top
  - Read Height 1.00 mm

Read Information

FilterMax F5
ROM vV1.1 b32 10.12.2010
Start Read : 12:19 PM
11/21/2014

Mean Temperature : 25.5 °C

Reduction Settings

Group Blank Used (Raw Values)
Wavelength Combination : !Lm1

Standards

Sample	Conc	BackCalcConc	Wells	Value	MeanValue	SD	CV
01	109....	35.922	A9	9493...	15869799....	57...	36.2
		126.262	A10	2065...			
		100.445	A11	1746...			
02	64.200	53.818	B9	1170...	15109923....	48...	31.9
		126.047	B10	2062...			
		64.308	B11	1299...			
03	38.200	49.651	C9	1118...	12646890....	16...	12.9
		58.980	C10	1234...			
		75.719	C11	1440...			
04	21.600	102.309	D9	1769...	11248583....	55...	49.6
		25.548	D10	8212...			
		22.529	D11	7839...			
05	13.900	57.543	E9	1216...	7308309.125	42...	58.7
		5.563	E10	5743...			
		-8.422	E11	4016...			
06	7.000	-39.082	F9	2296...	3562736.458	34...	97.0
		16.796	F10	7131...			
		-14.004	F11	3327...			
07	4.600	4.202	G9	5575...	4127982.125	12...	30.7
		-14.857	G10	3221...			
		-11.906	G11	3586...			
08	3.700	-18.705	H9	2746...	3028306.458	48...	15.9
		-11.914	H10	3585...			
		-18.651	H11	2753...			

Smallest standard value: 3028306.458

Largest standard value: 15869799.792

Unknowns

Sample	Wells	Value	R	Result	MeanResult	SD	CV
01	A1	8875...	R	-33.755	-33.755	0....	0.0
02	B1	9473...	R	-33.271	-33.271	0....	0.0
03	C1	1283...	R	-30.549	-30.549	0....	0.0
04	D1	2045...	R	-39.285	-39.285	0....	0.0
05	E1	7446...	R	-34.912	-34.912	0....	0.0
06	F1	3362...	R	-38.218	-38.218	0....	0.0
07	G1	6594...	R	-35.602	-35.602	0....	0.0
08	H1	9539...	R	-33.218	-33.218	0....	0.0
09	A2	1190...	R	-31.303	-31.303	0....	0.0
10	B2	9127...	R	-33.551	-33.551	0....	0.0
11	C2	1066...	R	-32.308	-32.308	0....	0.0
12	D2	2643...	R	-38.801	-38.801	0....	0.0
13	E2	1931...	R	-25.301	-25.301	0....	0.0
14	F2	8332...	R	-34.195	-34.195	0....	0.0
15	G2	2032...	R	-39.295	-39.295	0....	0.0
16	H2	1285...	R	-39.901	-39.901	0....	0.0
17	A3	7026...		15.945	15.945	0....	0.0
18	B3	1078...	R	-32.213	-32.213	0....	0.0
19	C3	5066...		0.079	0.079	0....	0.0
20	D3	3879...		-9.531	-9.531	0....	0.0
21	E3	4316...		-5.998	-5.998	0....	0.0
22	F3	3345...		-13.857	-13.857	0....	0.0
23	G3	2171...	R	-23.362	-23.362	0....	0.0
24	H3	5489...		3.499	3.499	0....	0.0
25	A4	8540...	R	-34.027	-34.027	0....	0.0
26	B4	9904...	R	-32.923	-32.923	0....	0.0
27	C4	1548...	R	-28.404	-28.404	0....	0.0
28	D4	1561...	R	-28.299	-28.299	0....	0.0
29	E4	1573...	R	-28.202	-28.202	0....	0.0
30	F4	2237...	R	-22.829	-22.829	0....	0.0
31	G4	3022...	R	-16.469	-16.469	0....	0.0
32	H4	1922...	R	-25.378	-25.378	0....	0.0
33	A5	1285...	R	-39.900	-39.900	0....	0.0
34	B5	8569...		28.435	28.435	0....	0.0
35	C5	1027...		42.234	42.234	0....	0.0
36	D5	8700...		29.497	29.497	0....	0.0
37	E5	7553...		20.210	20.210	0....	0.0
38	F5	6235...		9.539	9.539	0....	0.0
39	G5	6644...		12.855	12.855	0....	0.0
40	H5	5182...		1.019	1.019	0....	0.0
41	A6	1331...		66.880	66.880	0....	0.0
42	B6	1349...		68.308	68.308	0....	0.0
43	C6	4799...		-2.081	-2.081	0....	0.0
44	D6	6031...		7.893	7.893	0....	0.0
45	E6	4893...		-1.326	-1.326	0....	0.0
46	F6	7508...		19.850	19.850	0....	0.0
47	G6	7964...		23.543	23.543	0....	0.0
48	H6	8362...		26.761	26.761	0....	0.0
49	A7	1456...		76.981	76.981	0....	0.0
50	B7	1674...	R	94.589	94.589	0....	0.0
51	C7	1341...		67.641	67.641	0....	0.0
52	D7	4513...		-4.396	-4.396	0....	0.0
53	E7	6318...		10.211	10.211	0....	0.0
54	F7	1621...	R	90.333	90.333	0....	0.0
55	G7	9781...		38.252	38.252	0....	0.0
56	H7	7913...		23.128	23.128	0....	0.0
57	A8	5259...		1.638	1.638	0....	0.0

Unknowns (Contd)

Sample	Wells	Value	R	Result	MeanResult	SD	CV
58	B8	4935...		-0.979	-0.979	0....	0.0
59	C8	5088...		0.260	0.260	0....	0.0
60	D8	5648...		4.791	4.791	0....	0.0
61	E8	6039...		7.954	7.954	0....	0.0
62	F8	6007...		7.699	7.699	0....	0.0
63	G8	2852...	R	-17.845	-17.845	0....	0.0
64	H8	4403...		-5.294	-5.294	0....	0.0

R - Outside standard range

Unk_Dilution

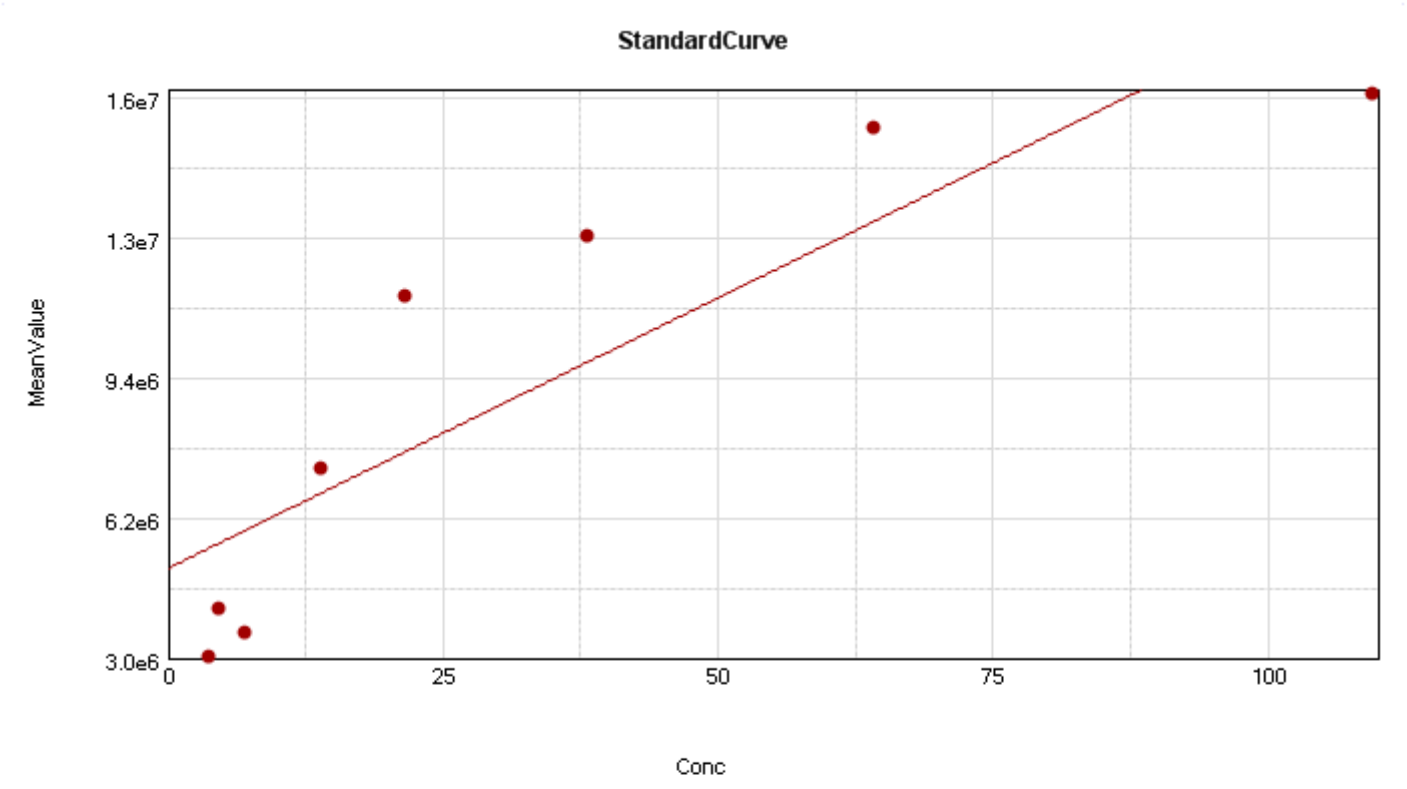
Sample	Wells	Value	R	Result	MeanResult	SD	CV	Dilution	AdjResult

R - Outside standard range

Mean Adjusted Result:

Control

Sample	Wells	Sample#	Values	MeanValue



● **Std** (Standards: MeanVal... vs Conc)

Curve Fit Results ▲

Curve Fit : Linear $y = A + Bx$

	Parameter	Estimated Value	Std. Error	Confidence Interval
Std $R^2 = 0.760$	A	5.06e+6	1.36e+6	[1.74e+6, 8.38e+6]
	B	1.24e+5	2.84e+4	[5.41e+4, 1.93e+5]