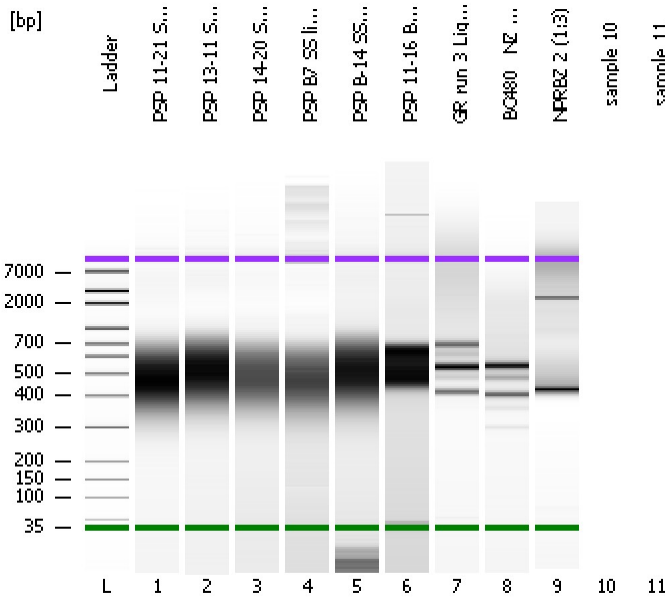


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-20\2016-04-20_004.xad

Created: 4/20/2016 2:50:52 PM
Modified: 4/20/2016 3:26:28 PM

Electrophoresis File Run Summary



Instrument Information:

Instrument Name: DE13701086 Firmware: C.01.069
Serial#: DE13701086 Type: G2938B

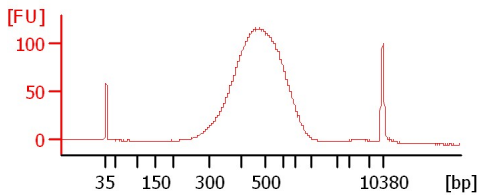
Assay Information:

Assay Origin Path: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\assays\dsDNA\High Sensitivity DNA.xsy
Assay Class: High Sensitivity DNA Assay
Version: 1.03
Assay Comments: Copyright © 2003-2010 Agilent Technologies

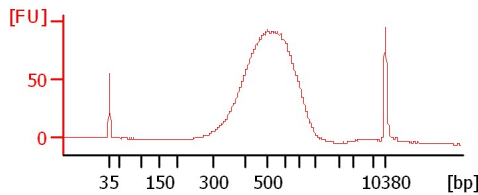
Chip Information:

Chip Lot #:
Reagent Kit Lot #:
Chip Comments:

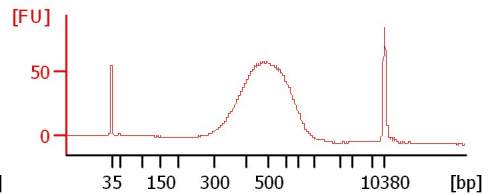
PSP 11-21 SS lib with 6 cyc PCR (1:2)



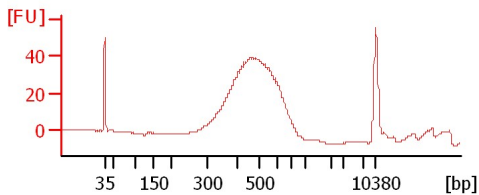
PSP 13-11 SS lib with 6 cyc PCR (1:3)



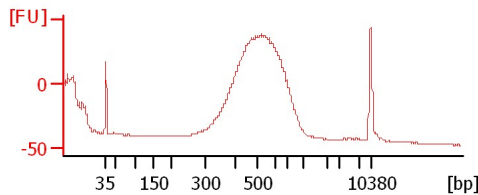
PSP 14-20 SS lib with 6 cyc PCR (1:2)



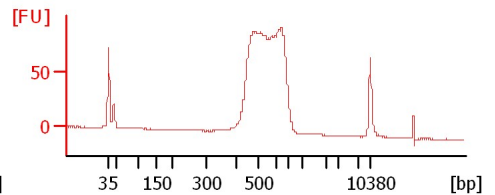
PSP B7 SS lib with 6 cyc PCR (1:3)



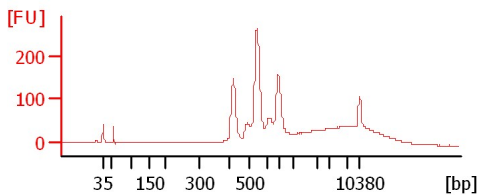
PSP B-14 SS lib with 6 cyc PCR (1:2)



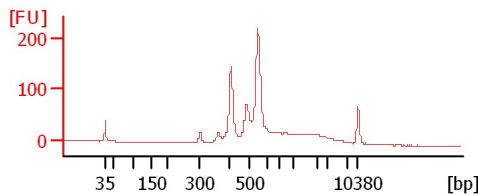
PSP 11-16 BP with 12 cyc PCR



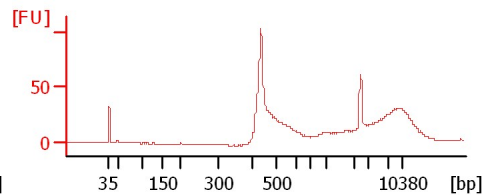
GR run 3 Lig Rxn



BC480 _NZ Lig Rxn (1:2)



NPRBZ 2 (1:3)



Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-20\2016-04-20_004.xad

Created: 4/20/2016 2:50:52 PM
Modified: 4/20/2016 3:26:28 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
PSP 11-21 SS lib with 6 cyc PCR (1:2)		<input type="checkbox"/>	✓			
PSP 13-11 SS lib with 6 cyc PCR (1:3)		<input type="checkbox"/>	✓			
PSP 14-20 SS lib with 6 cyc PCR (1:2)		<input type="checkbox"/>	✓			
PSP B7 SS lib with 6 cyc PCR (1:3)		<input type="checkbox"/>	✓			
PSP B-14 SS lib with 6 cyc PCR (1:2)		<input type="checkbox"/>	✓			
PSP 11-16 BP with 12 cyc PCR		<input type="checkbox"/>	✓			
GR run 3 Lig Rxn		<input type="checkbox"/>	✓			
BC480 _NZ Lig Rxn (1:2)		<input type="checkbox"/>	✓			
NPRBZ 2 (1:3)		<input type="checkbox"/>	✓			
sample 10		<input type="checkbox"/>				
sample 11		<input type="checkbox"/>				
Ladder		<input type="checkbox"/>	✓			

Chip Lot #

Reagent Kit Lot #

Chip Comments :

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-20\2016-04-20_004.xad

Created: 4/20/2016 2:50:52 PM
Modified: 4/20/2016 3:26:28 PM

Electrophoresis Assay Details

General Analysis Settings

Number of Available Sample and Ladder Wells (Max.) : 12
Minimum Visible Range [s] : 32
Maximum Visible Range [s] : 138
Start Analysis Time Range [s] : 33
End Analysis Time Range [s] : 137.5
Ladder Concentration [pg/μl] : 1950
Uses Standard Area for Ladder Fragments
Lower Marker Concentration [pg/μl] : 125
Upper Marker Concentration [pg/μl] : 75
Used Upper Marker for Quantitation
Standard Curve Fit is Point to Point
Show Data Aligned to Lower and Upper Marker

Integrator Settings

Integration Start Time [s] : 33.05
Integration End Time [s] : 137
Slope Threshold : 0.8
Height Threshold [FU] : 5
Area Threshold : 0.1
Width Threshold [s] : 0.6
Baseline Plateau [s] : 0.5

Filter Settings

Filter Width [s] : 0.5
Polynomial Order : 4

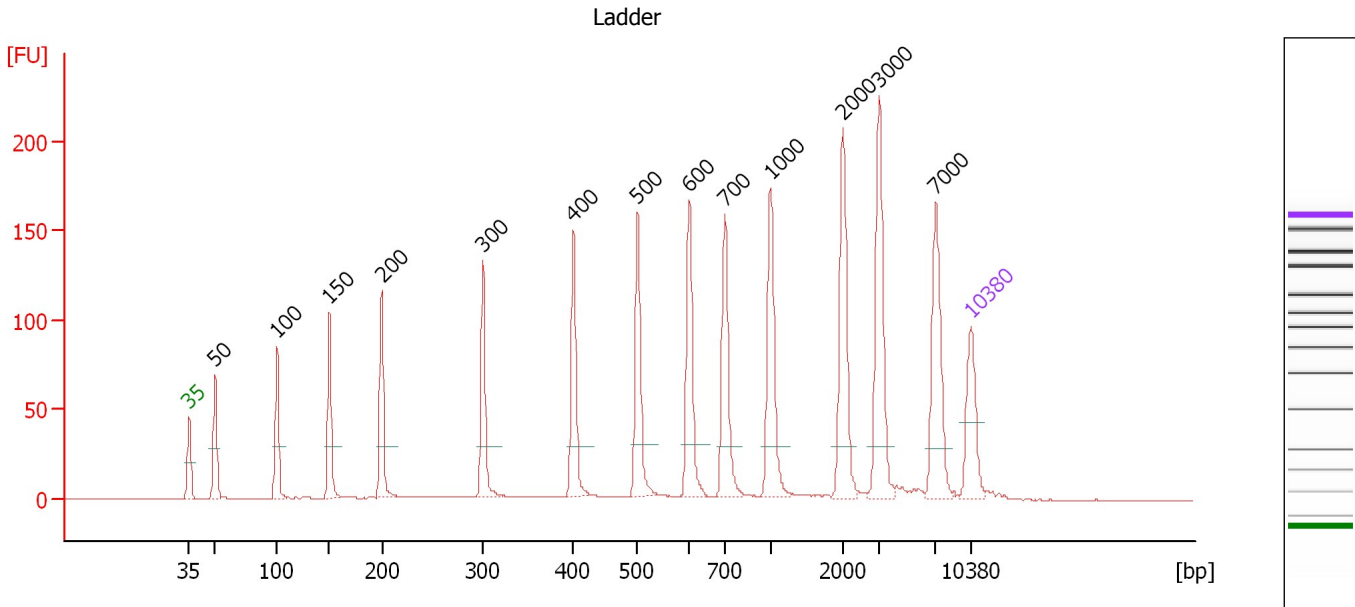
Ladder

Ladder Peak	Size	Area
1	35	160
2	50	210
3	100	208
4	150	221
5	200	242
6	300	270
7	400	305
8	500	306
9	600	336
10	700	321
11	1000	366
12	2000	413
13	3000	411
14	7000	400
15	10380	214

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-20\2016-04-20_004.xad

Created: 4/20/2016 2:50:52 PM
 Modified: 4/20/2016 3:26:28 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

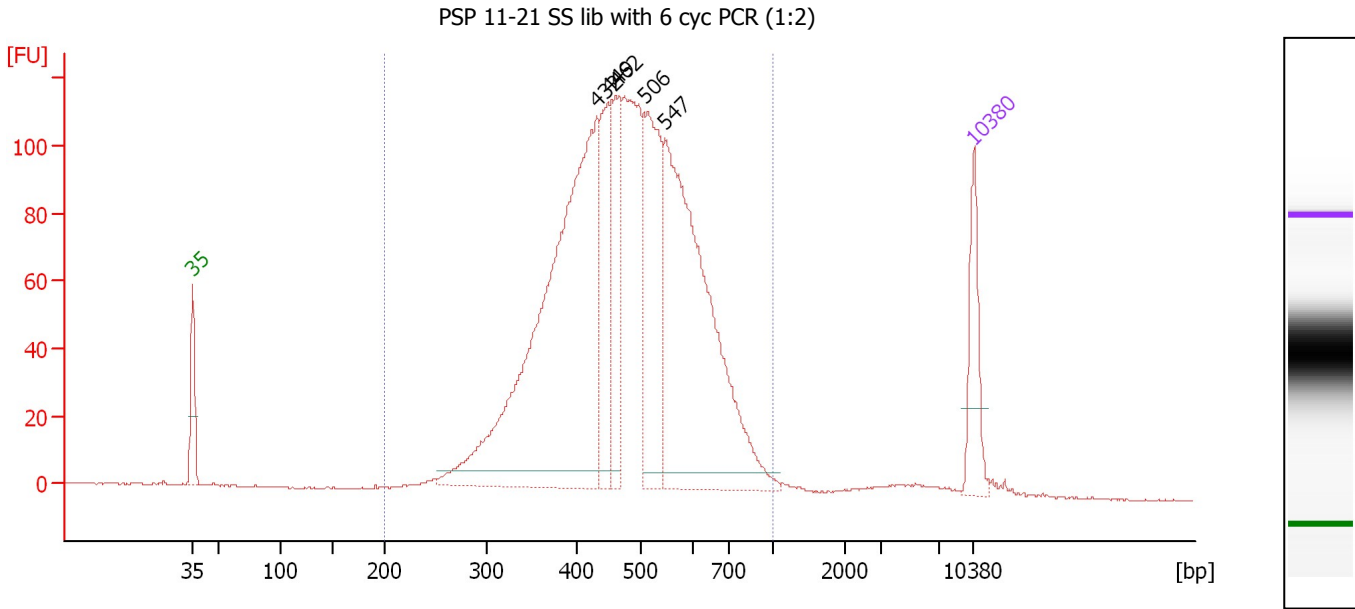
Peak table for Ladder

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	50	150.00	4,545.5	Ladder Peak	45.34
3	100	150.00	2,272.7	Ladder Peak	50.87
4	150	150.00	1,515.2	Ladder Peak	55.55
5	200	150.00	1,136.4	Ladder Peak	60.23
6	300	150.00	757.6	Ladder Peak	69.29
7	400	150.00	568.2	Ladder Peak	77.40
8	500	150.00	454.5	Ladder Peak	83.13
9	600	150.00	378.8	Ladder Peak	87.76
10	700	150.00	324.7	Ladder Peak	90.96
11	1,000	150.00	227.3	Ladder Peak	95.01
12	2,000	150.00	113.6	Ladder Peak	101.50
13	3,000	150.00	75.8	Ladder Peak	104.75
14	7,000	150.00	32.5	Ladder Peak	109.80
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-20\2016-04-20_004.xad

Created: 4/20/2016 2:50:52 PM
 Modified: 4/20/2016 3:26:28 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : PSP 11-21 SS lib with 6 cyc PCR (1:2)

Number of peaks found: 5 Corr. Area 1: 2,218.4
 Noise: 0.2

Peak table for sample 1 : PSP 11-21 SS lib with 6 cyc PCR (1:2)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	432	952.41	3,342.7		79.22
3	449	180.20	607.8		80.22
4	462	158.57	520.3		80.94
5	506	292.26	874.5		83.42
6	547	655.93	1,818.2		85.29
7	10,380	75.00	10.9	Upper Marker	113.00

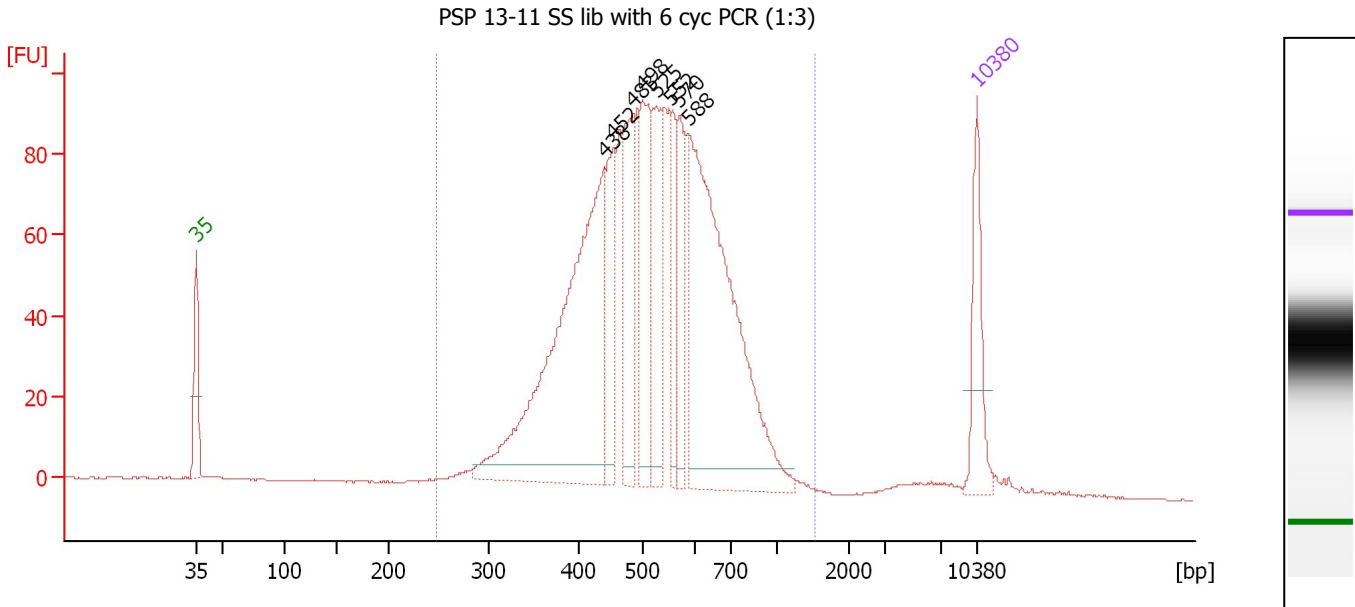
Region table for sample 1 : PSP 11-21 SS lib with 6 cyc PCR (1:2)

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	486	2,218.4	8,987.4	2,675.38	97	23.4

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-20\2016-04-20_004.xad

Created: 4/20/2016 2:50:52 PM
 Modified: 4/20/2016 3:26:28 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : PSP 13-11 SS lib with 6 cyc PCR (1:3)

Number of peaks found: 8 Corr. Area 1: 1,772.3
 Noise: 0.2

Peak table for sample 2 : PSP 13-11 SS lib with 6 cyc PCR (1:3)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	438	614.53	2,125.9		79.58
3	452	121.26	406.3		80.39
4	483	151.92	476.5		82.16
5	498	157.04	477.7		83.02
6	525	136.46	394.2		84.26
7	552	83.62	229.4		85.55
8	570	86.08	228.8		86.37
9	588	542.77	1,399.8		87.18
10	10,380	75.00	10.9	Upper Marker	113.00

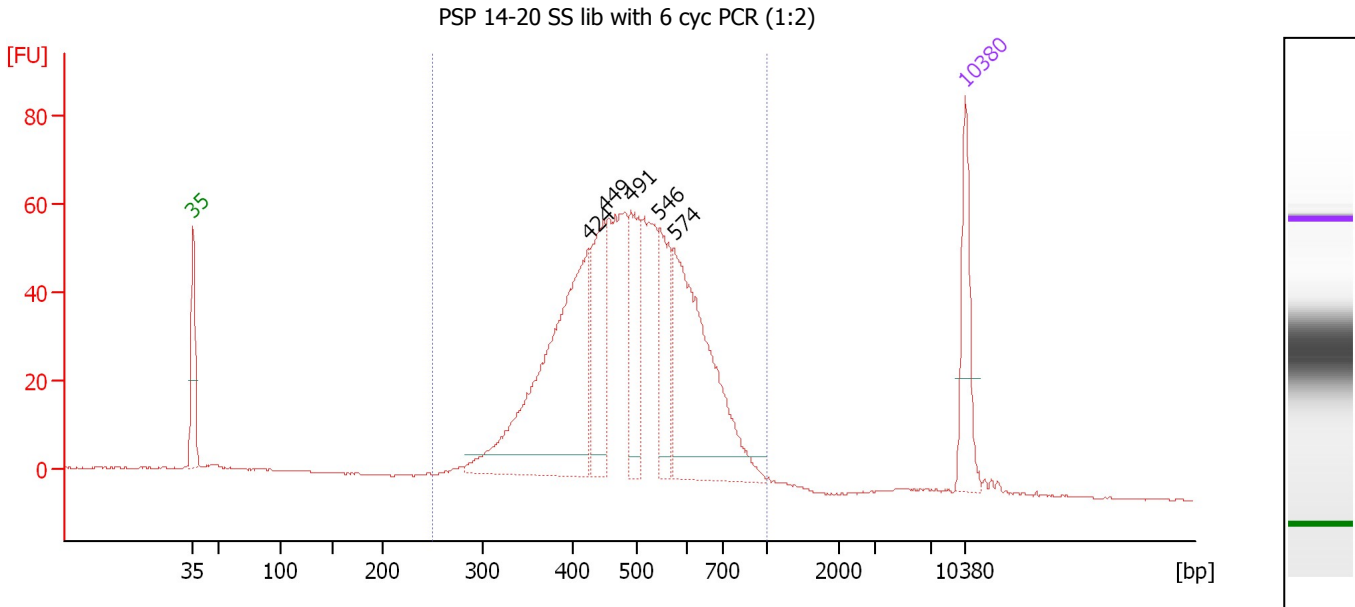
Region table for sample 2 : PSP 13-11 SS lib with 6 cyc PCR (1:3)

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
249	1,549	529	1,772.3	7,088.7	2,274.56	97	26.5

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-20\2016-04-20_004.xad

Created: 4/20/2016 2:50:52 PM
 Modified: 4/20/2016 3:26:28 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : PSP 14-20 SS lib with 6 cyc PCR (1:2)

Number of peaks found: 5 Corr. Area 1: 1,136.2
 Noise: 0.2

Peak table for sample 3 : PSP 14-20 SS lib with 6 cyc PCR (1:2)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	424	460.75	1,646.8		78.77
3	449	149.97	505.8		80.22
4	491	130.30	401.7		82.64
5	546	110.73	307.4		85.25
6	574	334.74	883.5		86.56
7	10,380	75.00	10.9	Upper Marker	113.00

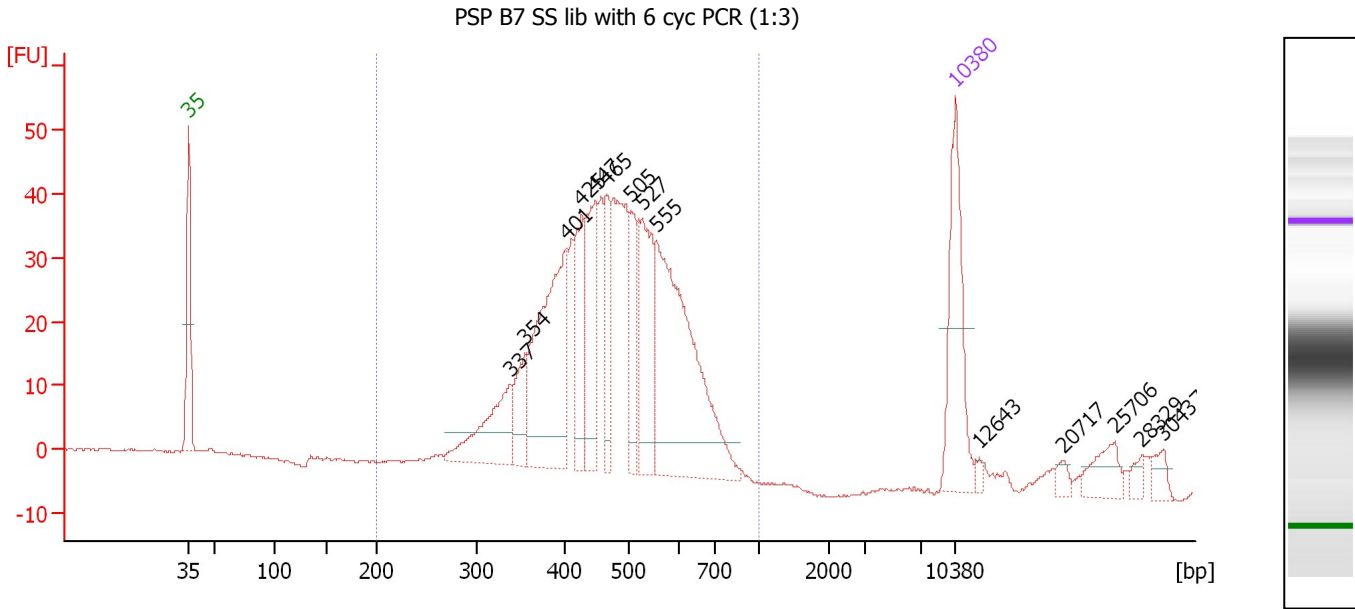
Region table for sample 3 : PSP 14-20 SS lib with 6 cyc PCR (1:2)

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
250	1,000	498	1,136.2	5,463.0	1,675.91	95	22.8

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-20\2016-04-20_004.xad

Created: 4/20/2016 2:50:52 PM
 Modified: 4/20/2016 3:26:28 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : PSP B7 SS lib with 6 cyc PCR (1:3)

Number of peaks found: 14 Corr. Area 1: 789.7
 Noise: 0.2

Peak table for sample 4 : PSP B7 SS lib with 6 cyc PCR (1:3)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	337	79.90	358.7		72.33
3	354	40.58	173.5		73.69
4	401	185.03	699.8		77.44
5	425	65.06	231.8		78.85
6	447	86.85	294.2		80.12
7	465	48.48	157.9		81.14
8	505	47.84	143.5		83.38
9	527	93.87	269.7		84.40
10	555	235.76	644.0		85.66
11	10,380	75.00	10.9	Upper Marker	113.00
12	12,643	0.00	0.0		115.14
13	20,717	0.00	0.0		122.78
14	25,706	0.00	0.0		127.50
15	28,329	0.00	0.0		129.98
16	30,437	0.00	0.0		131.97

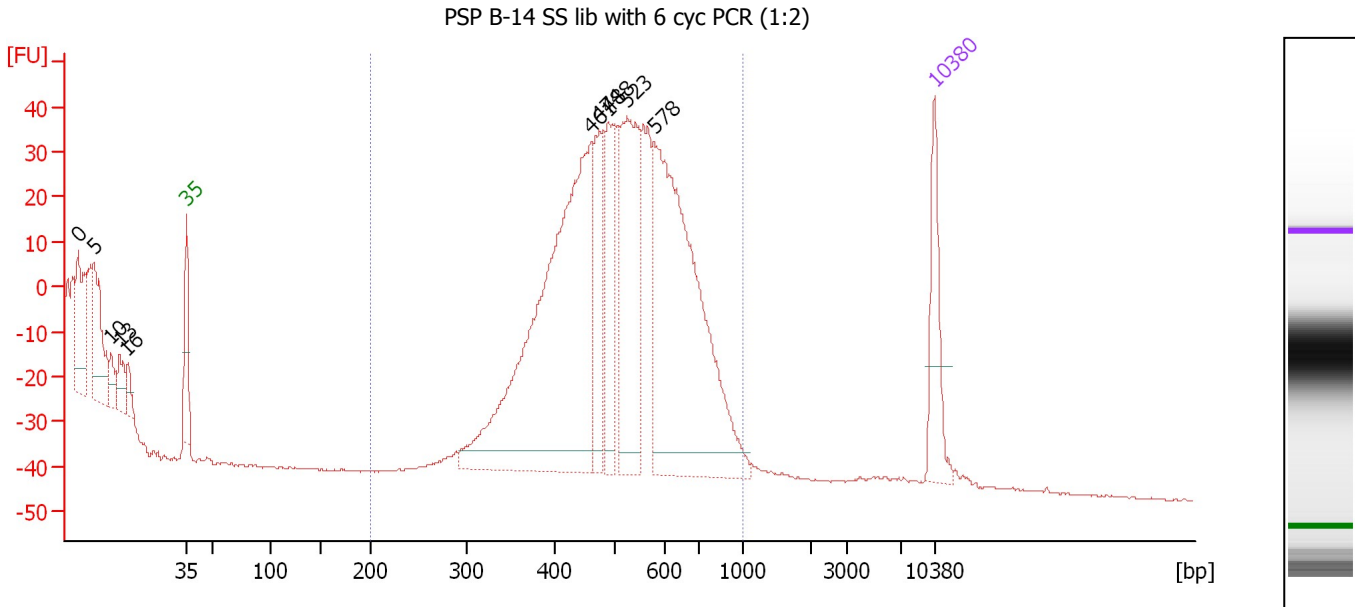
Region table for sample 4 : PSP B7 SS lib with 6 cyc PCR (1:3)

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	477	789.7	3,879.8	1,141.41	91	21.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-20\2016-04-20_004.xad

Created: 4/20/2016 2:50:52 PM
 Modified: 4/20/2016 3:26:28 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : PSP B-14 SS lib with 6 cyc PCR (1:2)

Number of peaks found: 10 Corr. Area 1: 888.8
 Noise: 0.2

Peak table for sample 5 : PSP B-14 SS lib with 6 cyc PCR (1:2)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	0	0.00	0.0		32.87
2	5	0.00	0.0		34.32
3	10	0.00	0.0		35.97
4	13	0.00	0.0		36.76
5	16	0.00	0.0		37.46
6	35	125.00	5,411.3	Lower Marker	43.00
7	461	753.95	2,480.6		80.87
8	474	108.34	346.6		81.62
9	488	123.91	384.4		82.47
10	523	266.01	770.1		84.21
11	578	573.05	1,501.2		86.76
12	10,380	75.00	10.9	Upper Marker	113.00

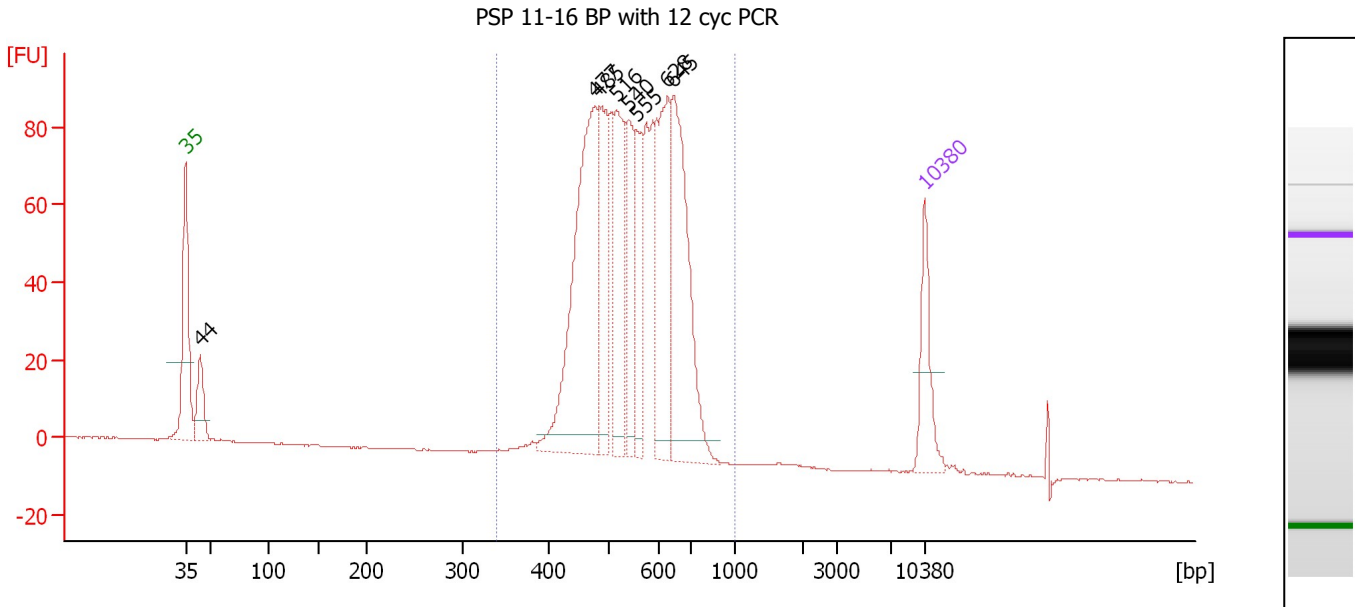
Region table for sample 5 : PSP B-14 SS lib with 6 cyc PCR (1:2)

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	531	888.8	3,795.2	1,278.40	98	17.9

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-20\2016-04-20_004.xad

Created: 4/20/2016 2:50:52 PM
 Modified: 4/20/2016 3:26:28 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : PSP 11-16 BP with 12 cyc PCR

Number of peaks found: 8 Corr. Area 1: 1,204.2
 Noise: 0.1

Peak table for sample 6 : PSP 11-16 BP with 12 cyc PCR

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	44	91.04	3,130.0		44.41
3	477	486.89	1,548.0		81.79
4	485	187.45	586.2		82.24
5	516	196.14	576.2		83.86
6	540	142.94	401.2		84.97
7	555	112.66	307.5		85.68
8	628	250.43	604.1		88.66
9	645	325.46	763.9		89.21
10	10,380	75.00	10.9	Upper Marker	113.00

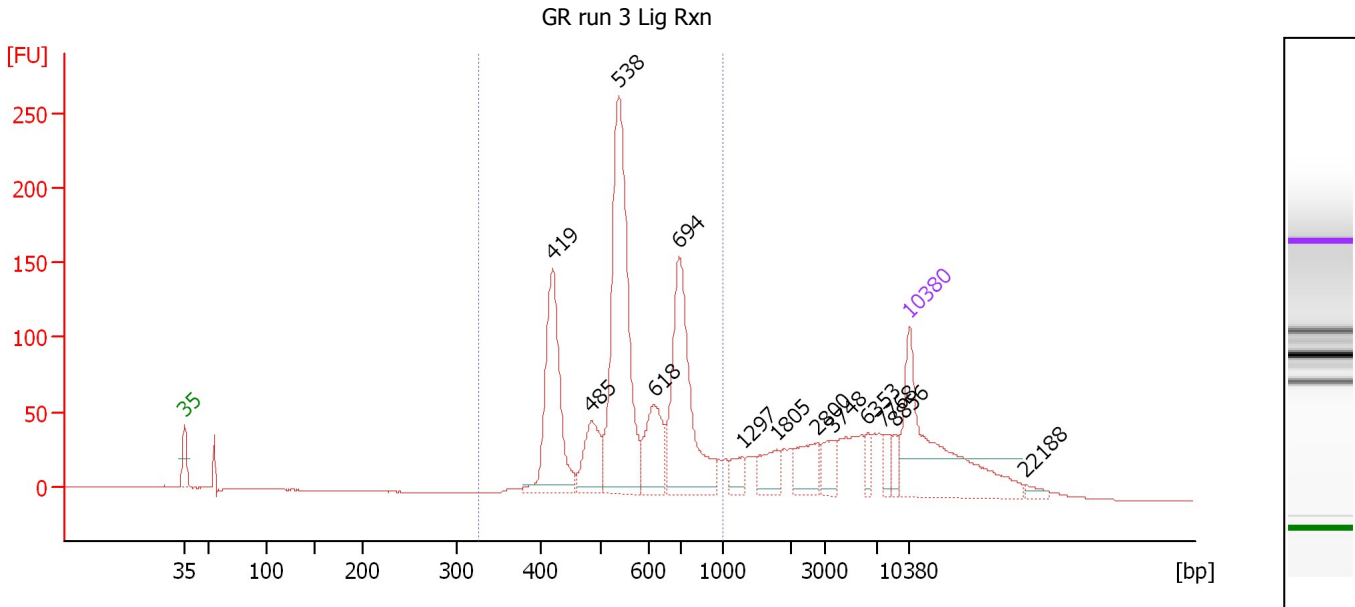
Region table for sample 6 : PSP 11-16 BP with 12 cyc PCR

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
340	1,000	551	1,204.2	5,687.7	2,008.88	95	14.9

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-20\2016-04-20_004.xad

Created: 4/20/2016 2:50:52 PM
 Modified: 4/20/2016 3:26:28 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : GR run 3 Lig Rxn

Number of peaks found: 13 Corr. Area 1: 1,488.4
 Noise: 0.2

Peak table for sample 7 : GR run 3 Lig Rxn

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	419	95.98	346.8		78.51
3	485	33.10	103.4		82.27
4	538	167.90	472.7		84.90
5	618	37.21	91.2		88.35
6	694	106.85	233.3		90.76
7	1,297	9.25	10.8		96.94
8	1,805	14.45	12.1		100.24
9	2,800	19.49	10.5		104.10
10	3,748	11.79	4.8		105.69
11	6,353	5.93	1.4		108.99
12	7,768	6.22	1.2		110.53
13	8,856	6.01	1.0		111.56
14	10,380	75.00	10.9	Upper Marker	113.00
15	22,188	0.00	0.0		124.17

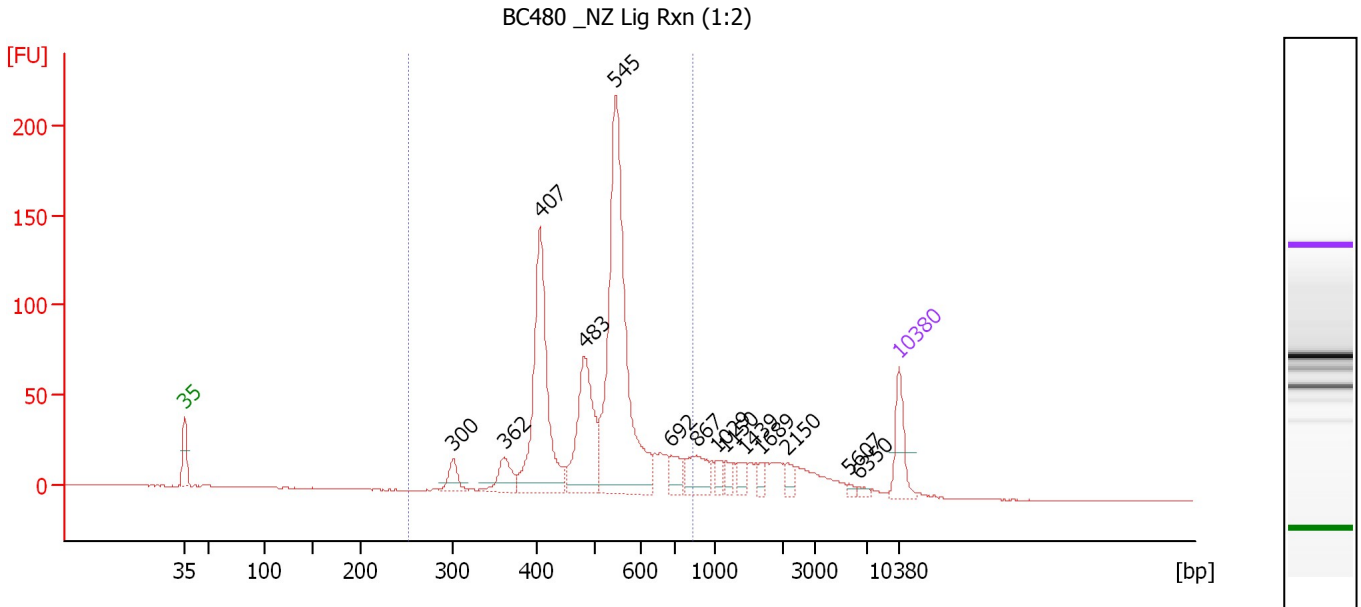
Region table for sample 7 : GR run 3 Lig Rxn

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
326	1,000	576	1,488.4	1,238.0	445.10	71	21.7

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-20\2016-04-20_004.xad

Created: 4/20/2016 2:50:52 PM
 Modified: 4/20/2016 3:26:28 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : BC480 NZ Lig Rxn (1:2)

Number of peaks found: 14 Corr. Area 1: 1,093.7
 Noise: 0.2

Peak table for sample 8 : BC480 NZ Lig Rxn (1:2)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	300	51.66	260.7		69.31
3	362	74.93	313.6		74.32
4	407	481.37	1,791.0		77.82
5	483	283.17	888.5		82.15
6	545	792.78	2,202.5		85.23
7	692	46.67	102.1		90.71
8	867	82.04	143.3		93.22
9	1,029	22.83	33.6		95.20
10	1,150	21.53	28.4		95.98
11	1,439	24.01	25.3		97.86
12	1,689	15.54	13.9		99.48
13	2,150	21.18	14.9		101.99
14	5,607	6.60	1.8		108.04
15	6,350	8.36	2.0		108.98
16	10,380	75.00	10.9	Upper Marker	113.00

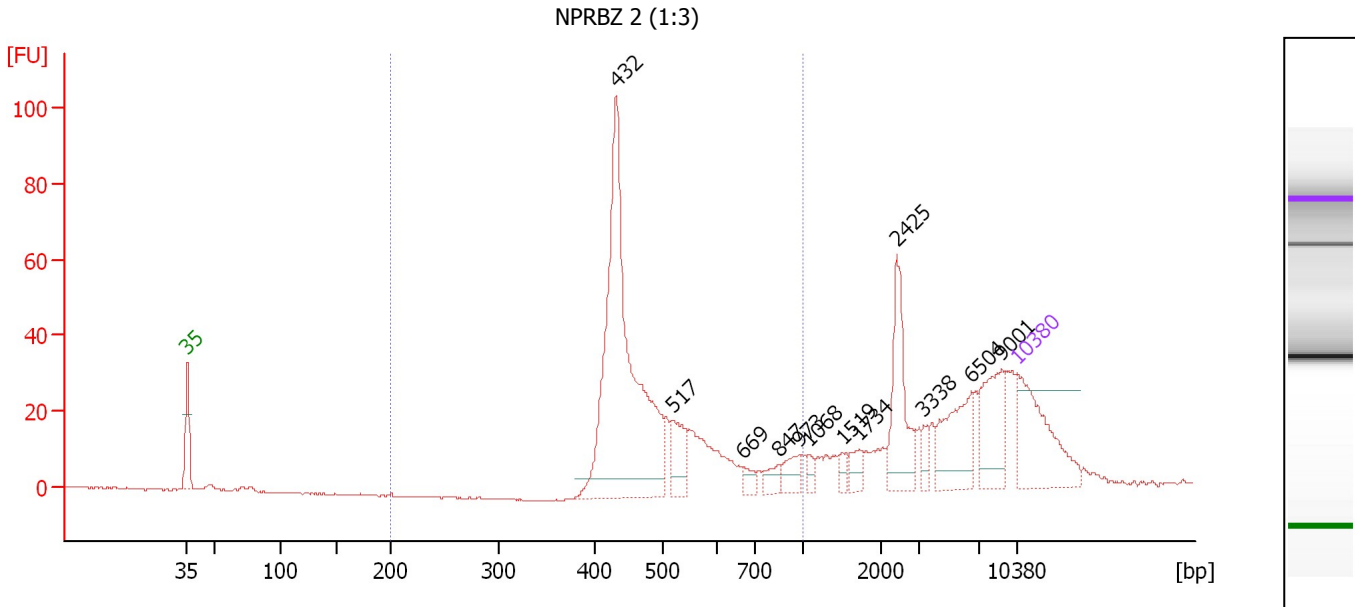
Region table for sample 8 : BC480 NZ Lig Rxn (1:2)

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
253	838	510	1,093.7	5,653.4	1,812.11	81	19.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-20\2016-04-20_004.xad

Created: 4/20/2016 2:50:52 PM
 Modified: 4/20/2016 3:26:28 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : NPRBZ 2 (1:3)

Number of peaks found: 12 Corr. Area 1: 412.8
 Noise: 0.2

Peak table for sample 9 : NPRBZ 2 (1:3)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	432	407.62	1,430.9		79.21
3	517	40.33	118.1		83.94
4	669	10.46	23.7		89.97
5	847	12.86	23.0		92.94
6	973	17.81	27.7		94.65
7	1,068	7.93	11.2		95.46
8	1,519	8.46	8.4		98.38
9	1,734	13.37	11.7		99.77
10	2,425	68.95	43.1		102.88
11	3,338	8.99	4.1		105.17
12	6,504	59.86	13.9		109.18
13	9,001	54.44	9.2		111.70
14	10,380	75.00	10.9	Upper Marker	113.00

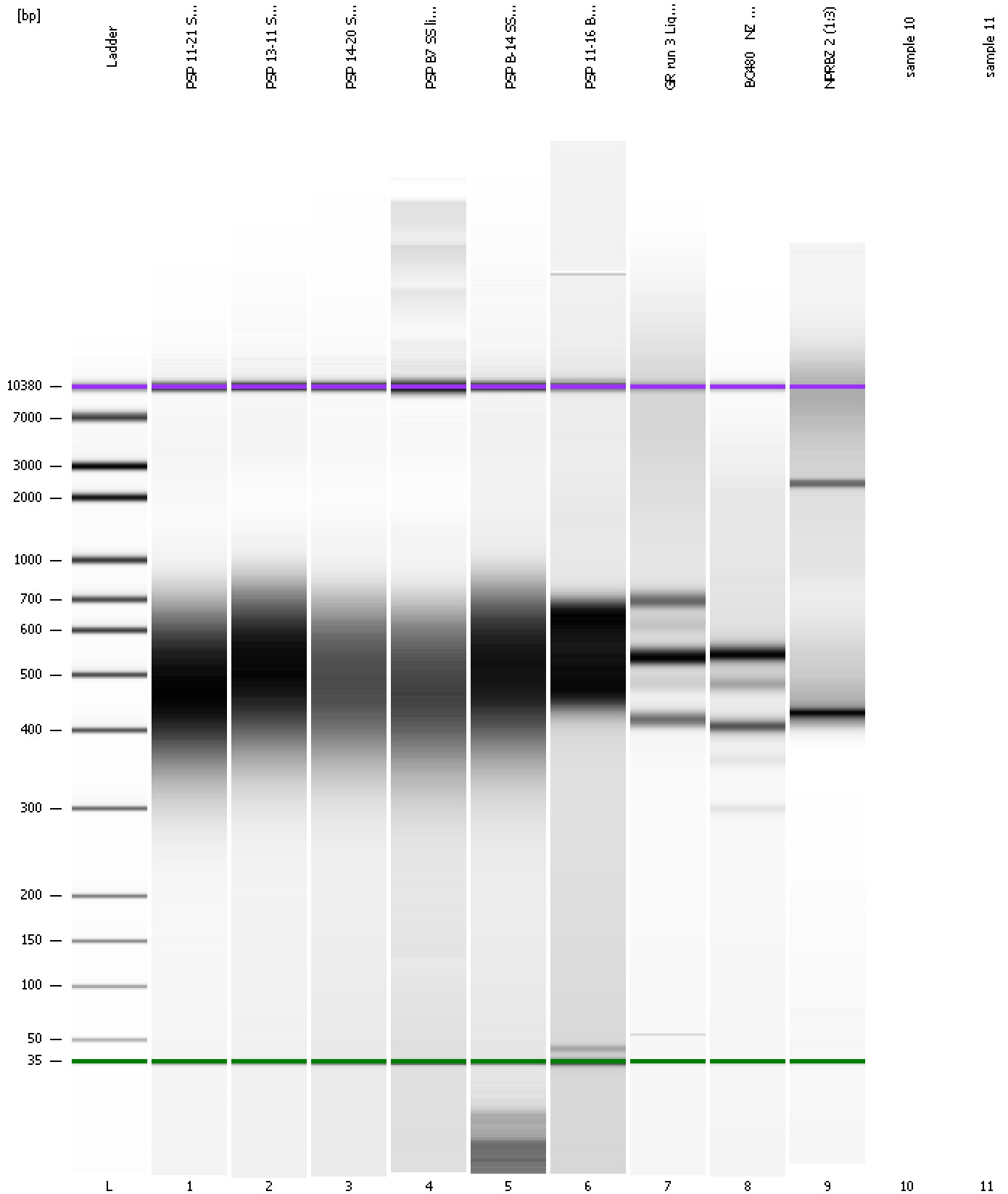
Region table for sample 9 : NPRBZ 2 (1:3)

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	502	412.8	1,605.3	506.71	57	23.7

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-20\2016-04-20_004.xad

Created: 4/20/2016 2:50:52 PM
Modified: 4/20/2016 3:26:28 PM

Gel Image

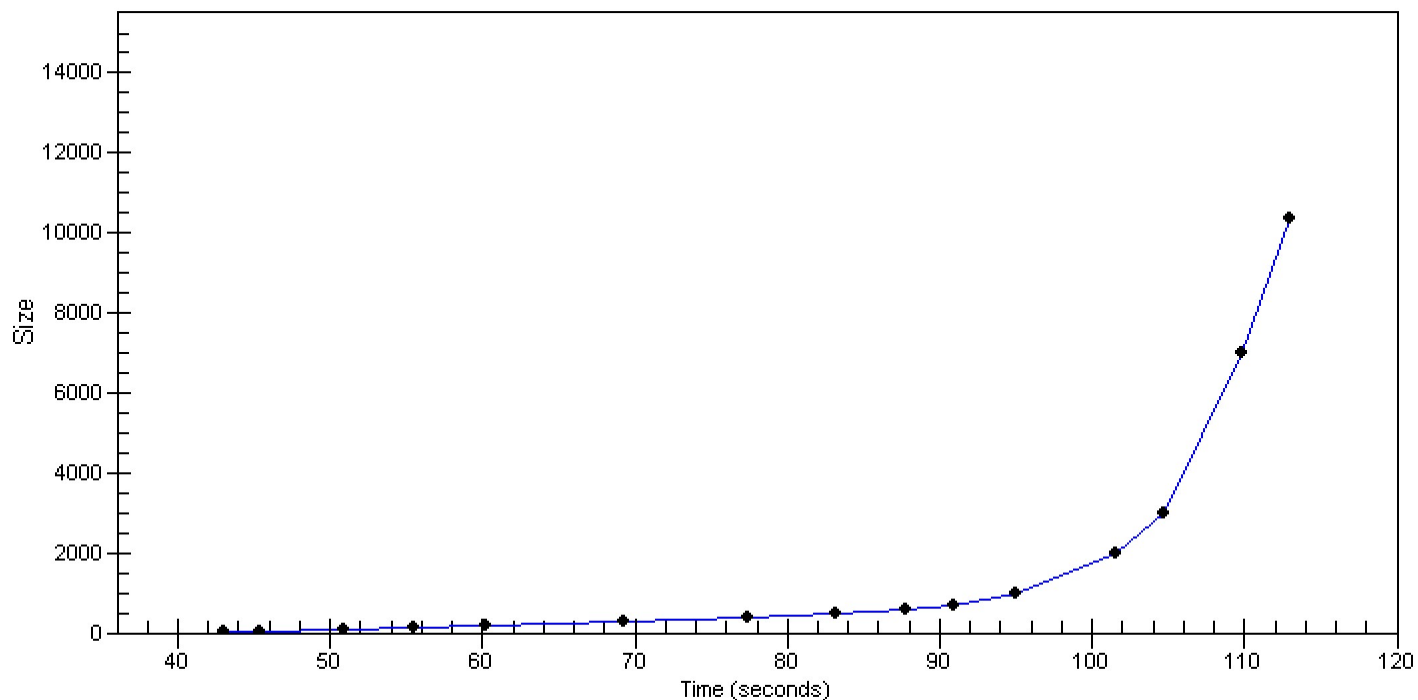


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-20\2016-04-20_004.xad

Created: 4/20/2016 2:50:52 PM
Modified: 4/20/2016 3:26:28 PM

Curves

Standard Curve



Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-20\2016-04-20_004.xad

Created: 4/20/2016 2:50:52 PM
Modified: 4/20/2016 3:26:28 PM

Invalid Samples

Sample 10 has not been run, no results available.

Sample 11 has not been run, no results available.

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-20\2016-04-20_004.xad

Created: 4/20/2016 2:50:52 PM
 Modified: 4/20/2016 3:26:28 PM

Run Logbook

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 10)		Instrument	Run		4/20/2016 3:26:27 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\data\2016-04-20\2016-04-20_004.xad)		Instrument	Run		4/20/2016 2:50:58 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		4/20/2016 2:50:58 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		4/20/2016 2:50:58 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		4/20/2016 2:50:58 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		4/20/2016 2:50:58 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		4/20/2016 2:50:58 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		4/20/2016 2:50:58 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1