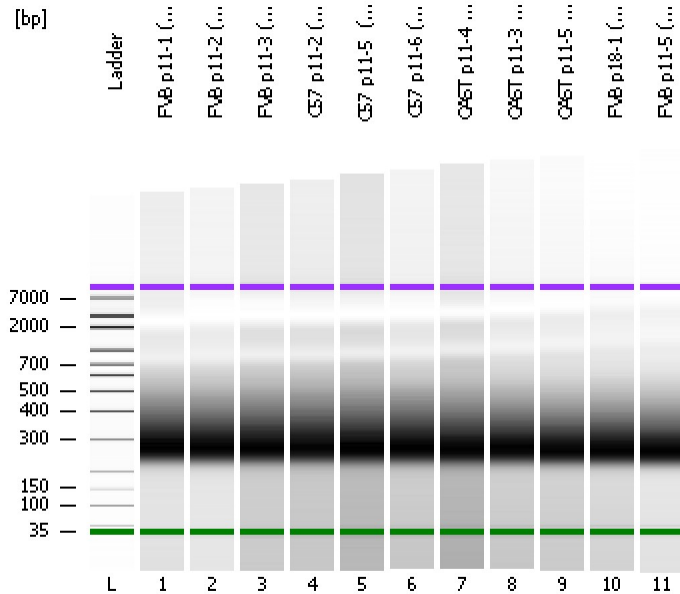


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-27\2016-04-27_005.xad

Created: 4/27/2016 7:38:26 PM
Modified: 4/27/2016 8:24:33 PM

Electrophoresis File Run Summary



Instrument Information:

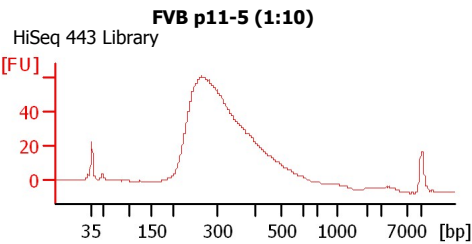
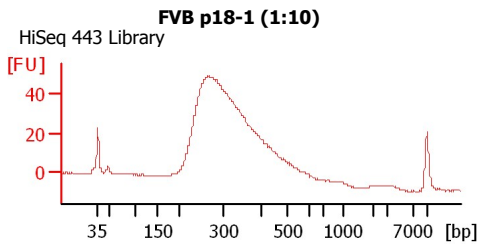
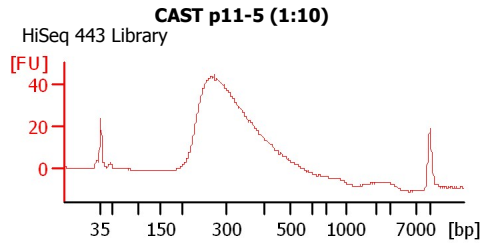
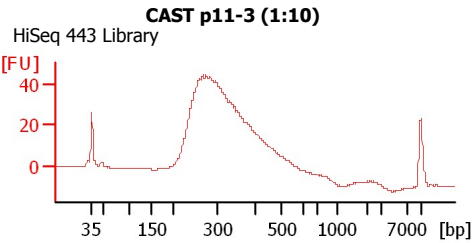
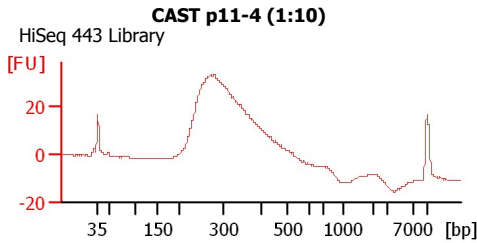
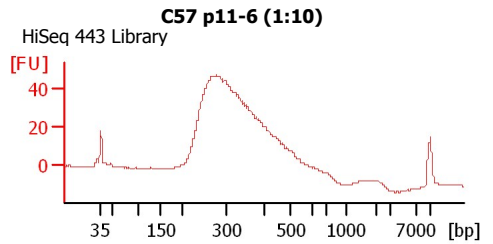
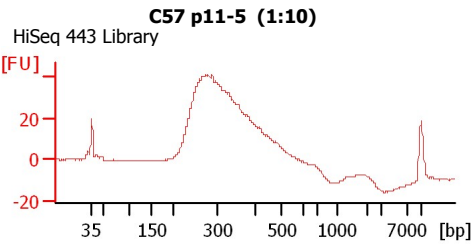
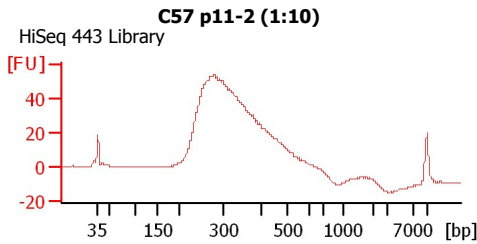
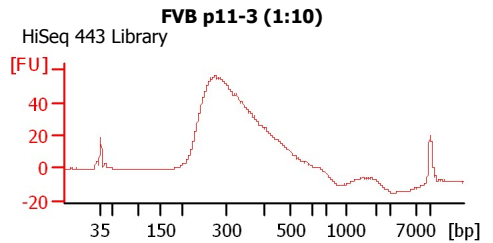
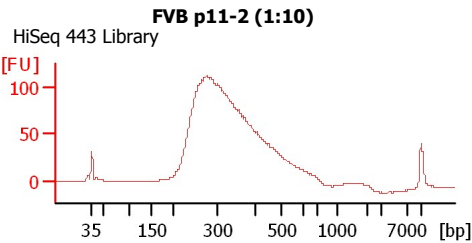
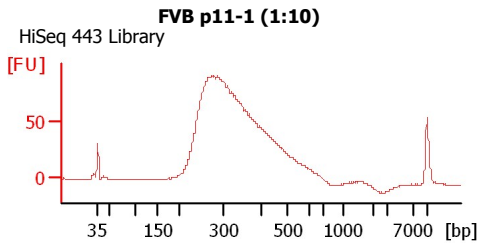
Instrument Name: DE13701086 Firmware: C.01.069
Serial#: DE13701086 Type: G2938B

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:



Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-27\2016-04-27_005.xad

Created: 4/27/2016 7:38:26 PM
Modified: 4/27/2016 8:24:33 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
FVB p11-1 (1:10)	HiSeq 443 Library	<input type="checkbox"/>	✓			
FVB p11-2 (1:10)	HiSeq 443 Library	<input type="checkbox"/>	✓			
FVB p11-3 (1:10)	HiSeq 443 Library	<input type="checkbox"/>	✓			
C57 p11-2 (1:10)	HiSeq 443 Library	<input type="checkbox"/>	✓			
C57 p11-5 (1:10)	HiSeq 443 Library	<input type="checkbox"/>	✓			
C57 p11-6 (1:10)	HiSeq 443 Library	<input type="checkbox"/>	✓			
CAST p11-4 (1:10)	HiSeq 443 Library	<input type="checkbox"/>	✓			
CAST p11-3 (1:10)	HiSeq 443 Library	<input type="checkbox"/>	✓			
CAST p11-5 (1:10)	HiSeq 443 Library	<input type="checkbox"/>	✓			
FVB p18-1 (1:10)	HiSeq 443 Library	<input type="checkbox"/>	✓			
FVB p11-5 (1:10)	HiSeq 443 Library	<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\2016-04-27\2016-04-27_005.xad

Created: 4/27/2016 7:38:26 PM
Modified: 4/27/2016 8:24:33 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

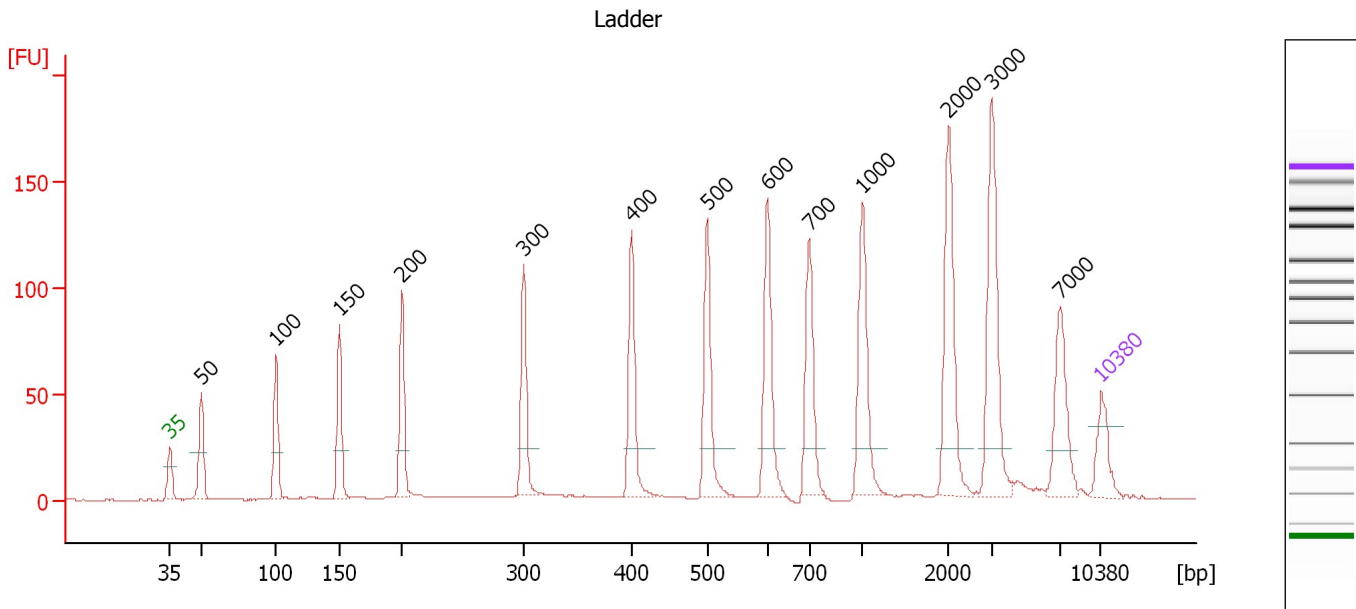
Ladder

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\2016-04-27\2016-04-27_005.xad

Created: 4/27/2016 7:38:26 PM
 Modified: 4/27/2016 8:24:33 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

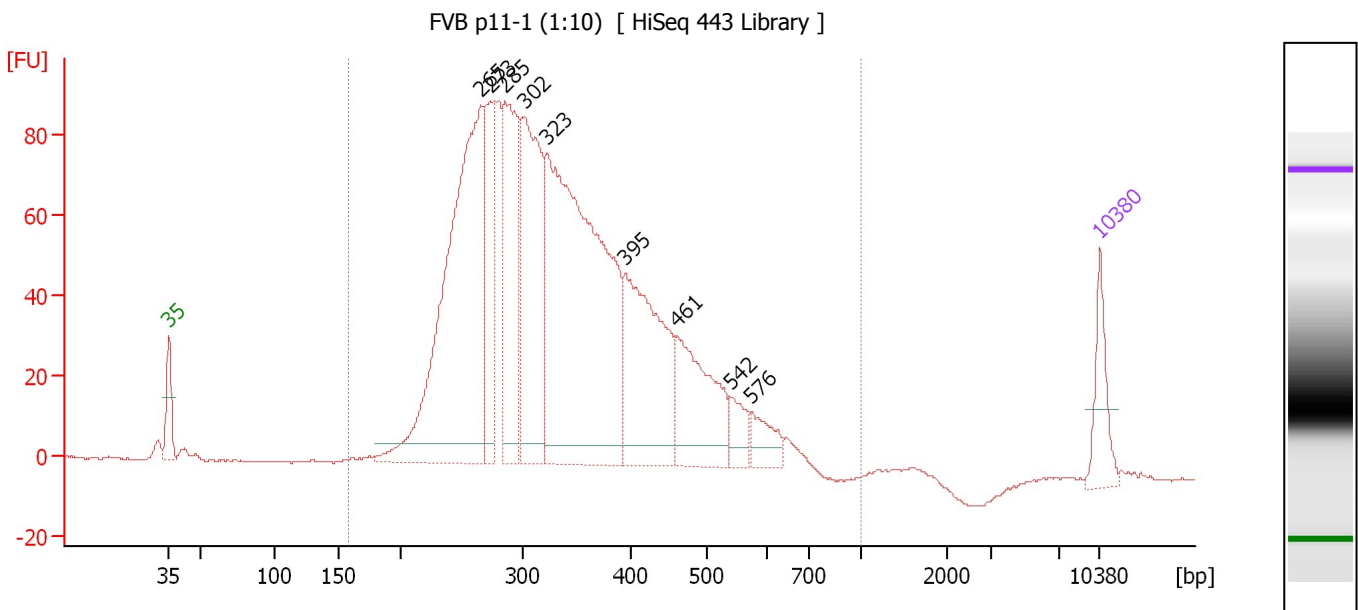
Peak table for Ladder

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	45.36
3	100	150.00	2,272.7	Ladder Peak	50.98
4	150	150.00	1,515.2	Ladder Peak	55.75
5	200	150.00	1,136.4	Ladder Peak	60.46
6	300	150.00	757.6	Ladder Peak	69.59
7	400	150.00	568.2	Ladder Peak	77.72
8	500	150.00	454.5	Ladder Peak	83.39
9	600	150.00	378.8	Ladder Peak	87.91
10	700	150.00	324.7	Ladder Peak	91.07
11	1,000	150.00	227.3	Ladder Peak	95.09
12	2,000	150.00	113.6	Ladder Peak	101.56
13	3,000	150.00	75.8	Ladder Peak	104.77
14	7,000	150.00	32.5	Ladder Peak	109.94
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-27\2016-04-27_005.xad

Created: 4/27/2016 7:38:26 PM
Modified: 4/27/2016 8:24:33 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : FVB p11-1 (1:10)

Number of peaks found: 9 Corr. Area 1: 1,890.2
Noise: 0.2

Peak table for sample 1 : FVB p11-1 (1:10)

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	265	1,077.62	6,152.0		66.44
3	273	236.97	1,314.2		67.15
4	285	404.39	2,146.2		68.27
5	302	477.05	2,394.4		69.75
6	323	1,216.64	5,715.1		71.43
7	395	428.66	1,645.9		77.29
8	461	268.39	882.9		81.16
9	542	56.12	156.9		85.29
10	576	61.69	162.4		86.81
11	10,380	75.00	10.9	Upper Marker	113.00

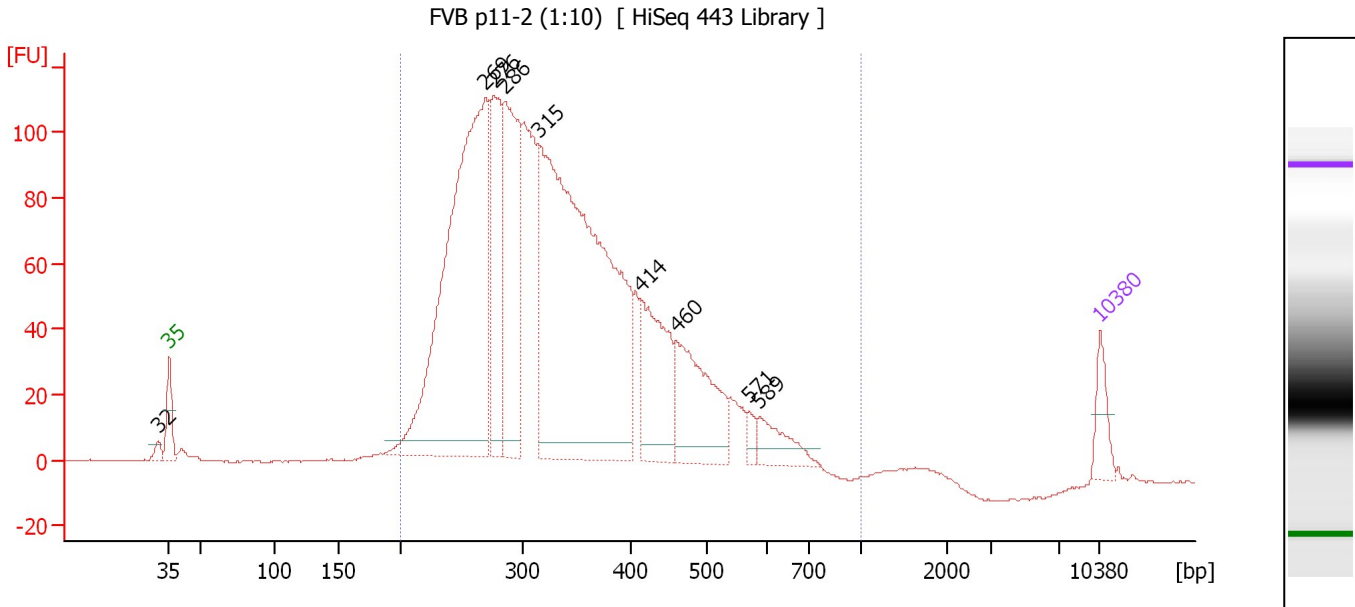
Region table for sample 1 : FVB p11-1 (1:10)

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/µl]	% of Total	Size distribution in CV [%]
158	1,000	342	1,890.2	21,462.6	4,447.97	99	26.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-27\2016-04-27_005.xad

Created: 4/27/2016 7:38:26 PM
 Modified: 4/27/2016 8:24:33 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : FVB p11-2 (1:10)

Number of peaks found: 9 Corr. Area 1: 2,351.2
 Noise: 0.2

Peak table for sample 2 : FVB p11-2 (1:10)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	32	0.00	0.0		42.13
2	35	125.00	5,411.3	Lower Marker	43.00
3	269	1,975.04	11,117.4		66.78
4	276	499.28	2,735.9		67.45
5	286	707.50	3,754.5		68.27
6	315	2,354.06	11,332.0		70.79
7	414	398.59	1,458.9		78.51
8	460	413.74	1,362.1		81.14
9	571	34.52	91.6		86.60
10	589	115.98	298.3		87.42
11	10,380	75.00	10.9	Upper Marker	113.00

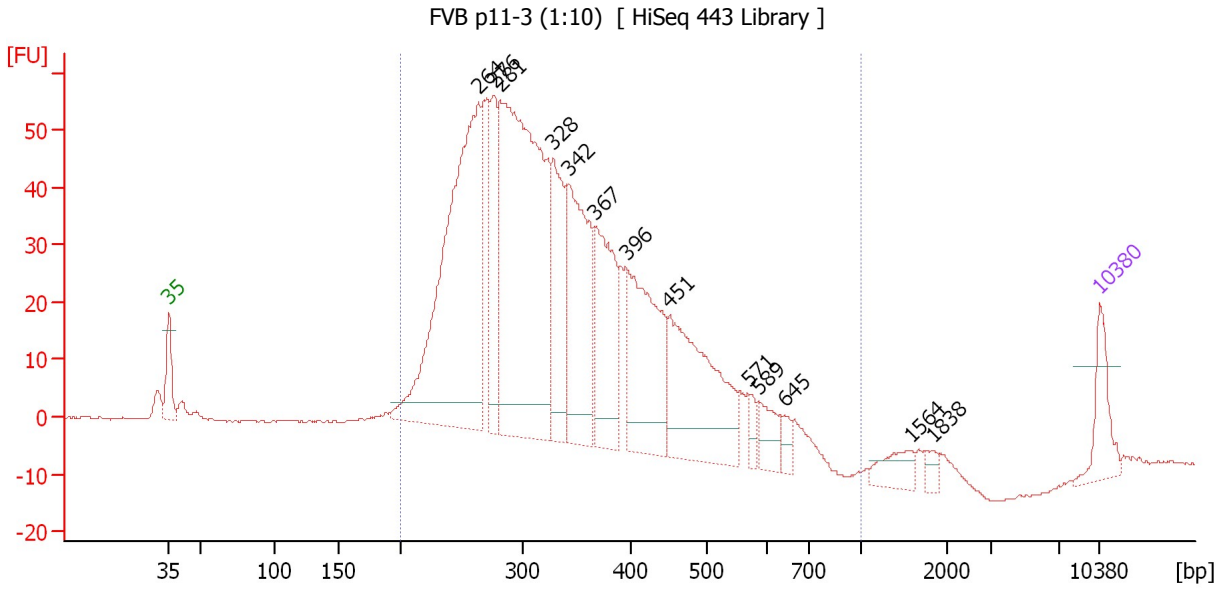
Region table for sample 2 : FVB p11-2 (1:10)

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	344	2,351.2	36,195.2	7,510.68	97	27.7

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-27\2016-04-27_005.xad

Created: 4/27/2016 7:38:26 PM
 Modified: 4/27/2016 8:24:33 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : FVB p11-3 (1:10)

Number of peaks found: 13 Corr. Area 1: 1,164.5
 Noise: 0.2

Peak table for sample 3 : FVB p11-3 (1:10)

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	264	1,061.60	6,103.7		66.26
3	276	226.50	1,243.1		67.41
4	281	1,177.42	6,344.3		67.88
5	328	272.70	1,259.0		71.88
6	342	426.62	1,892.2		72.98
7	367	317.73	1,313.3		75.01
8	396	373.31	1,428.2		77.40
9	451	410.33	1,377.9		80.63
10	571	30.23	80.2		86.61
11	589	60.52	155.8		87.39
12	645	26.52	62.3		89.32
13	1,564	48.01	46.5		98.74
14	1,838	19.88	16.4		100.51
15	10,380	75.00	10.9	Upper Marker	113.00

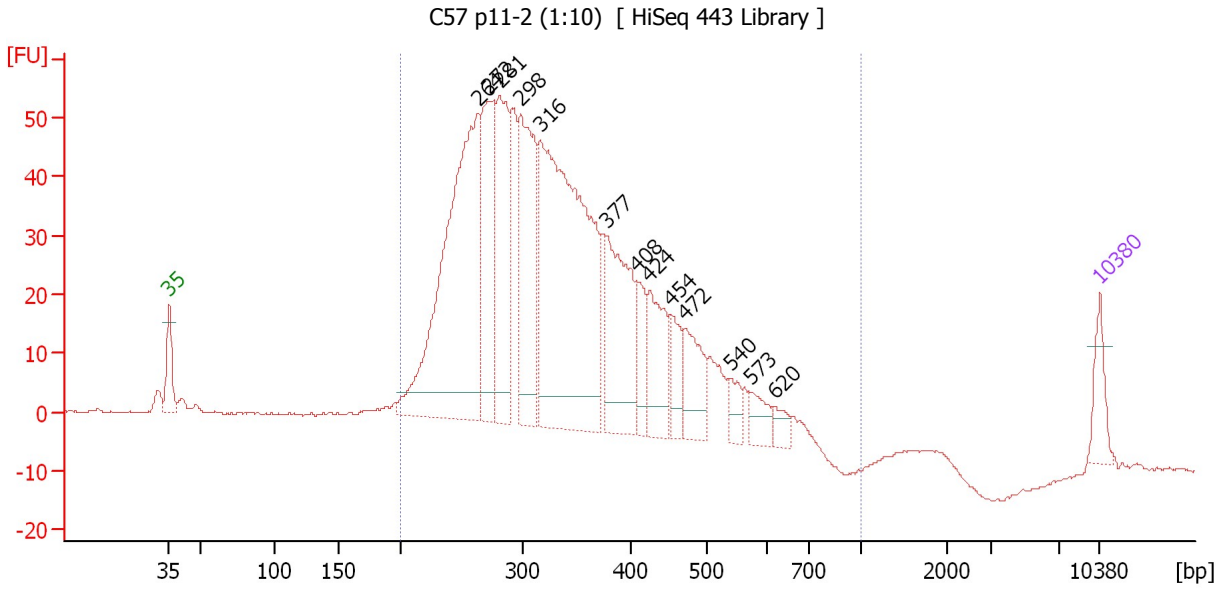
Region table for sample 3 : FVB p11-3 (1:10)

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	337	1,164.5	21,201.6	4,358.35	97	25.9

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-27\2016-04-27_005.xad

Created: 4/27/2016 7:38:26 PM
 Modified: 4/27/2016 8:24:33 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : C57 p11-2 (1:10)

Number of peaks found: 13 Corr. Area 1: 1,181.5
 Noise: 0.3

Peak table for sample 4 : C57 p11-2 (1:10)

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	264	1,302.77	7,479.6		66.30
3	272	491.32	2,737.4		67.03
4	281	508.35	2,739.7		67.87
5	298	573.49	2,912.2		69.45
6	316	1,440.20	6,900.0		70.92
7	377	442.24	1,777.7		75.85
8	408	122.64	455.8		78.16
9	424	221.93	792.5		79.10
10	454	110.51	368.9		80.78
11	472	174.16	558.6		81.83
12	540	58.76	165.0		85.19
13	573	67.85	179.3		86.71
14	620	42.01	102.6		88.55
15	10,380	75.00	10.9	Upper Marker	113.00

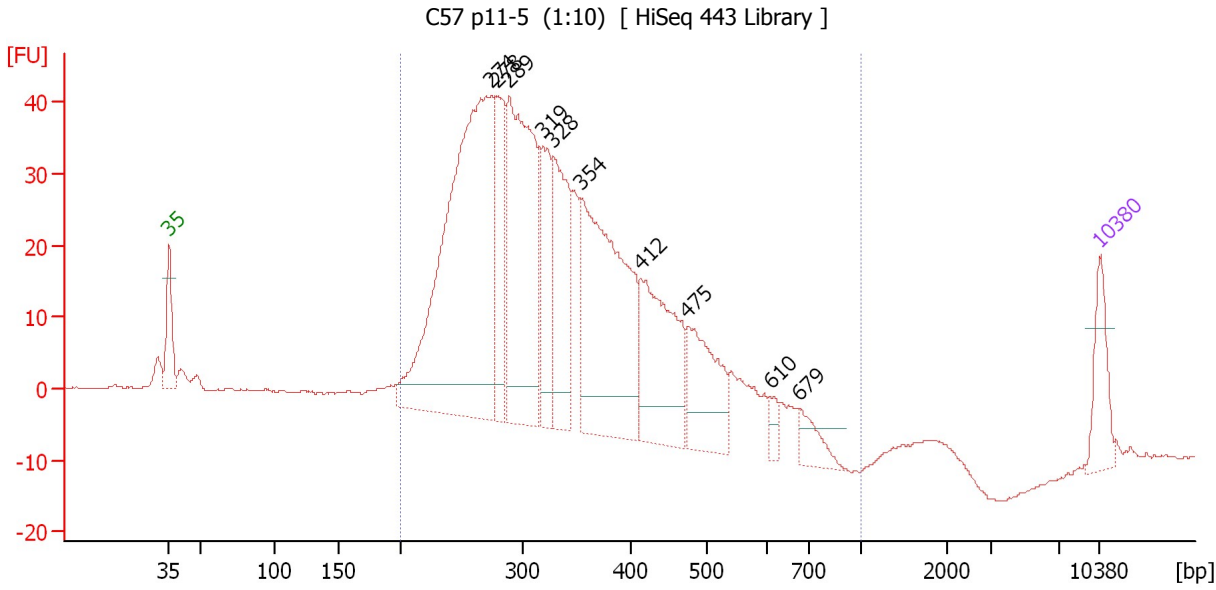
Region table for sample 4 : C57 p11-2 (1:10)

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	343	1,181.5	30,195.7	6,262.36	94	27.2

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-27\2016-04-27_005.xad

Created: 4/27/2016 7:38:26 PM
 Modified: 4/27/2016 8:24:33 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : C57 p11-5 (1:10)

Number of peaks found: 10 Corr. Area 1: 873.2
 Noise: 0.2

Peak table for sample 5 : C57 p11-5 (1:10)

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	274	1,153.13	6,381.2		67.20
3	278	206.68	1,126.9		67.57
4	289	633.33	3,321.0		68.59
5	319	195.59	929.1		71.14
6	328	280.85	1,296.8		71.88
7	354	622.05	2,664.9		73.96
8	412	313.73	1,152.7		78.43
9	475	198.48	632.8		81.99
10	610	22.25	55.3		88.21
11	679	52.90	118.1		90.39
12	10,380	75.00	10.9	Upper Marker	113.00

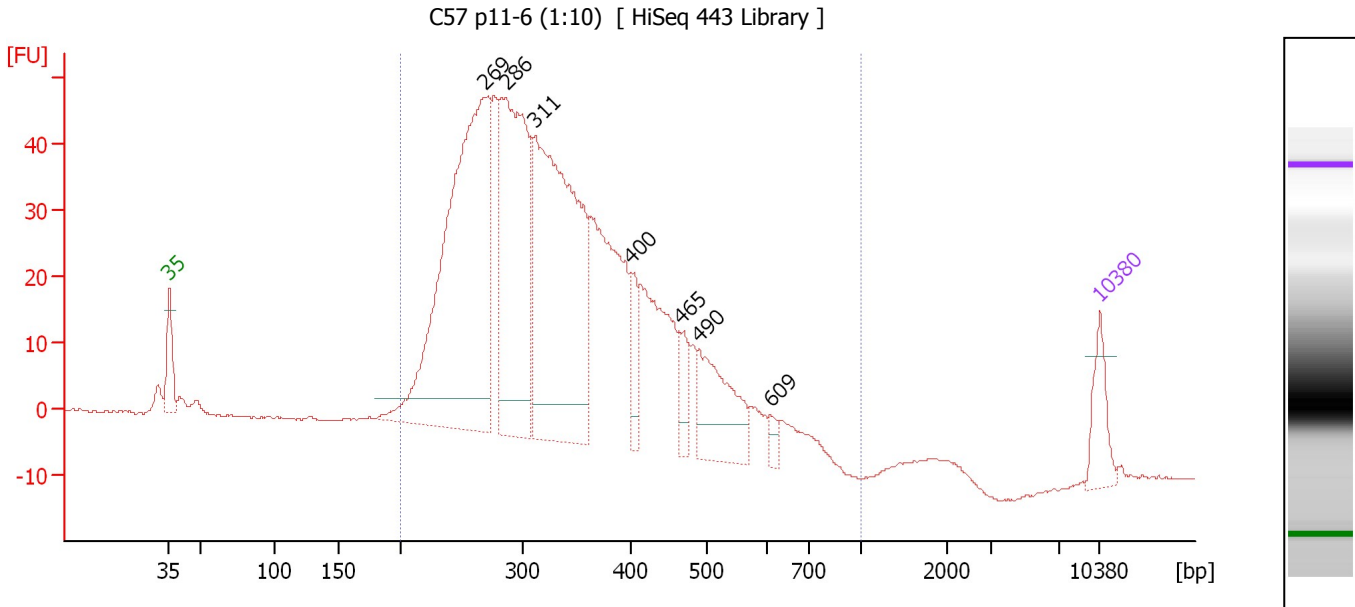
Region table for sample 5 : C57 p11-5 (1:10)

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	335	873.2	17,293.2	3,538.58	93	25.7

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-27\2016-04-27_005.xad

Created: 4/27/2016 7:38:26 PM
 Modified: 4/27/2016 8:24:33 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : C57 p11-6 (1:10)

Number of peaks found: 7 Corr. Area 1: 1,023.1
 Noise: 0.2

Peak table for sample 6 : C57 p11-6 (1:10)

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	269	1,330.33	7,488.0		66.78
3	286	799.74	4,233.4		68.34
4	311	1,094.53	5,333.4		70.48
5	400	94.97	359.6		77.73
6	465	67.81	220.7		81.44
7	490	233.89	723.1		82.83
8	609	23.88	59.4		88.20
9	10,380	75.00	10.9	Upper Marker	113.00

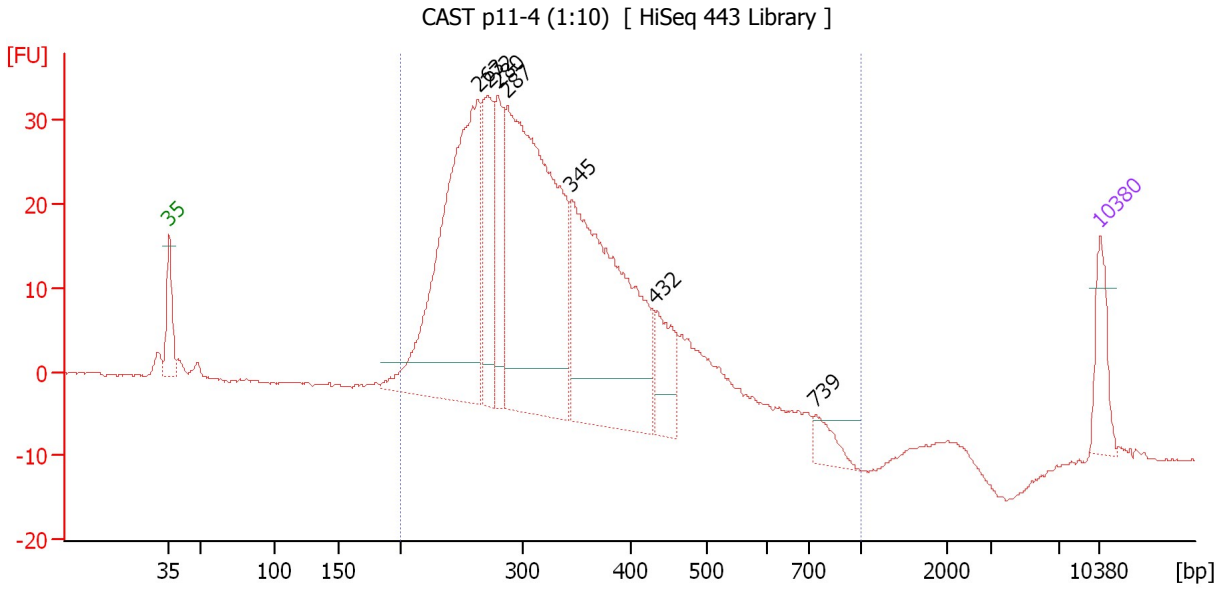
Region table for sample 6 : C57 p11-6 (1:10)

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	338	1,023.1	22,695.9	4,672.97	97	26.2

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-27\2016-04-27_005.xad

Created: 4/27/2016 7:38:26 PM
 Modified: 4/27/2016 8:24:33 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : CAST p11-4 (1:10)

Number of peaks found: 7 Corr. Area 1: 673.2
 Noise: 0.2

Peak table for sample 7 : CAST p11-4 (1:10)

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	263	956.08	5,497.7		66.26
3	272	260.46	1,451.7		67.02
4	280	194.78	1,055.5		67.73
5	287	1,139.71	6,022.0		68.39
6	345	816.26	3,587.3		73.23
7	432	132.64	465.0		79.55
8	739	47.65	97.7		91.59
9	10,380	75.00	10.9	Upper Marker	113.00

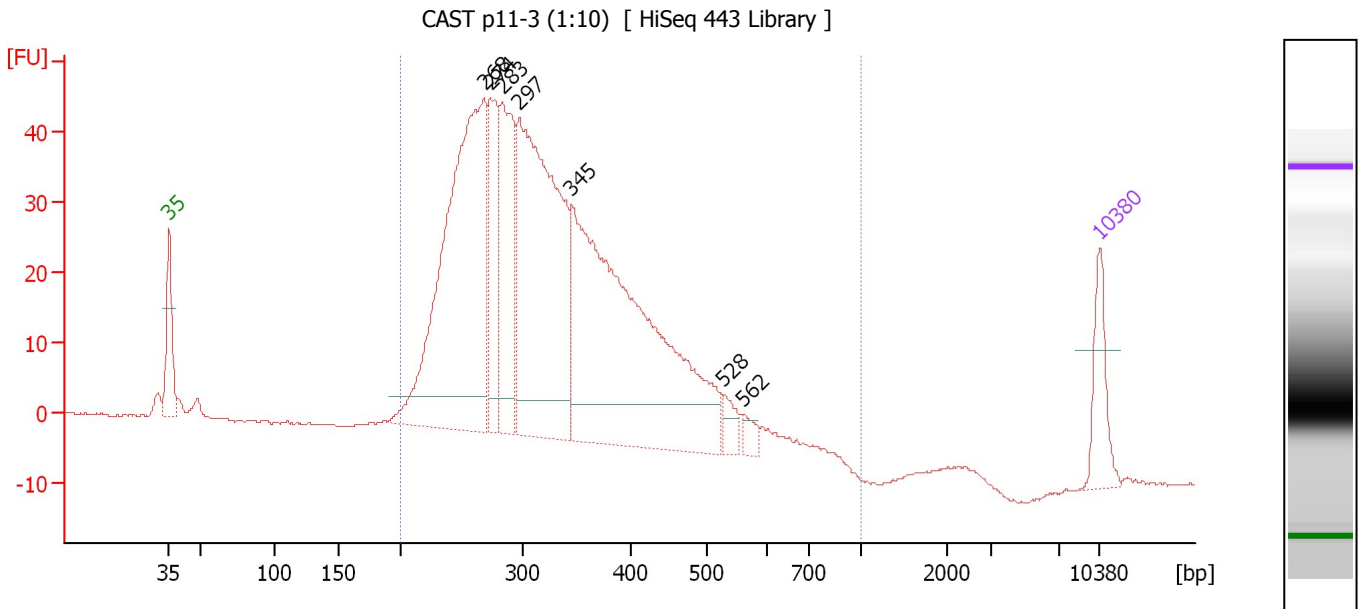
Region table for sample 7 : CAST p11-4 (1:10)

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	325	673.2	16,948.4	3,397.67	96	24.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-27\2016-04-27_005.xad

Created: 4/27/2016 7:38:26 PM
 Modified: 4/27/2016 8:24:33 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : CAST p11-3 (1:10)

Number of peaks found: 7 Corr. Area 1: 909.6
 Noise: 0.2

Peak table for sample 8 : CAST p11-3 (1:10)

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	268	974.99	5,510.0		66.68
3	274	235.78	1,306.1		67.18
4	283	308.28	1,649.4		68.06
5	297	842.94	4,299.5		69.33
6	345	1,047.45	4,602.9		73.24
7	528	36.69	105.4		84.64
8	562	24.55	66.2		86.18
9	10,380	75.00	10.9	Upper Marker	113.00

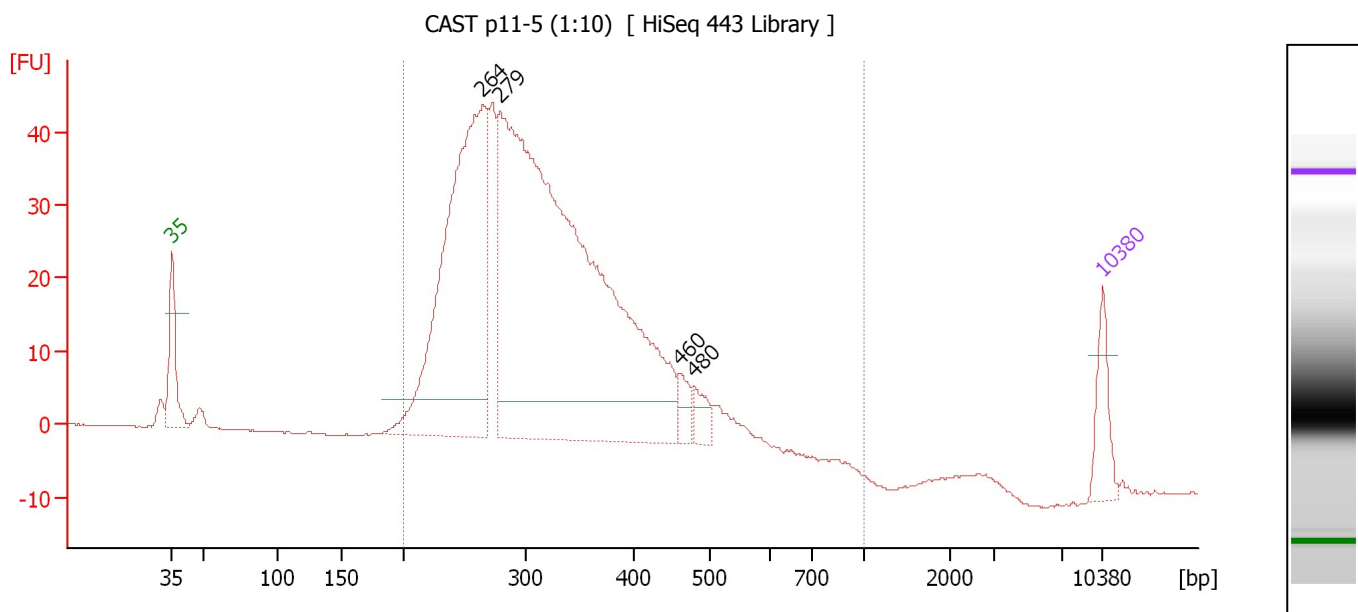
Region table for sample 8 : CAST p11-3 (1:10)

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	331	909.6	16,912.6	3,428.27	97	25.4

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-27\2016-04-27_005.xad

Created: 4/27/2016 7:38:26 PM
 Modified: 4/27/2016 8:24:33 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : CAST p11-5 (1:10)

Number of peaks found: 4 Corr. Area 1: 851.2
 Noise: 0.2

Peak table for sample 9 : CAST p11-5 (1:10)

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	264	1,201.09	6,885.8		66.33
3	279	2,483.96	13,493.3		67.67
4	460	45.22	148.8		81.15
5	480	46.79	147.7		82.26
6	10,380	75.00	10.9	Upper Marker	113.00

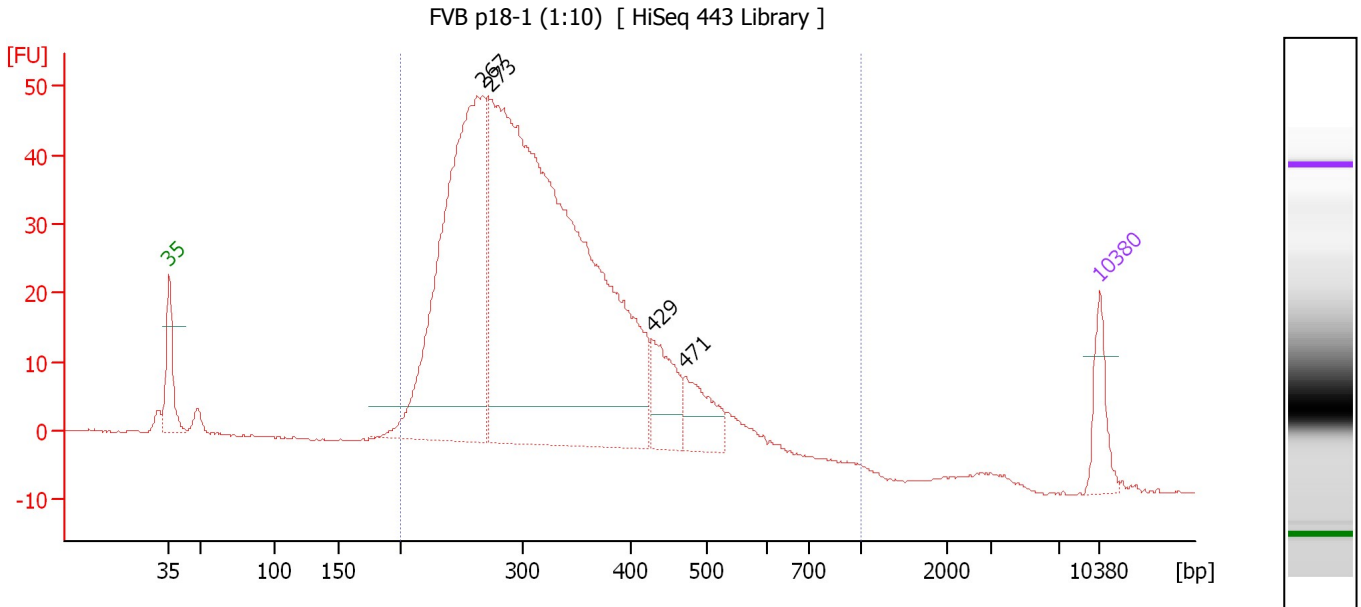
Region table for sample 9 : CAST p11-5 (1:10)

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	325	851.2	20,228.3	4,040.99	96	25.4

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-27\2016-04-27_005.xad

Created: 4/27/2016 7:38:26 PM
 Modified: 4/27/2016 8:24:33 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : FVB p18-1 (1:10)

Number of peaks found: 4 Corr. Area 1: 960.3
 Noise: 0.2

Peak table for sample 10 : FVB p18-1 (1:10)

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	267	1,302.73	7,388.3		66.60
3	273	2,685.94	14,923.8		67.10
4	429	152.14	537.8		79.35
5	471	125.94	404.9		81.76
6	10,380	75.00	10.9	Upper Marker	113.00

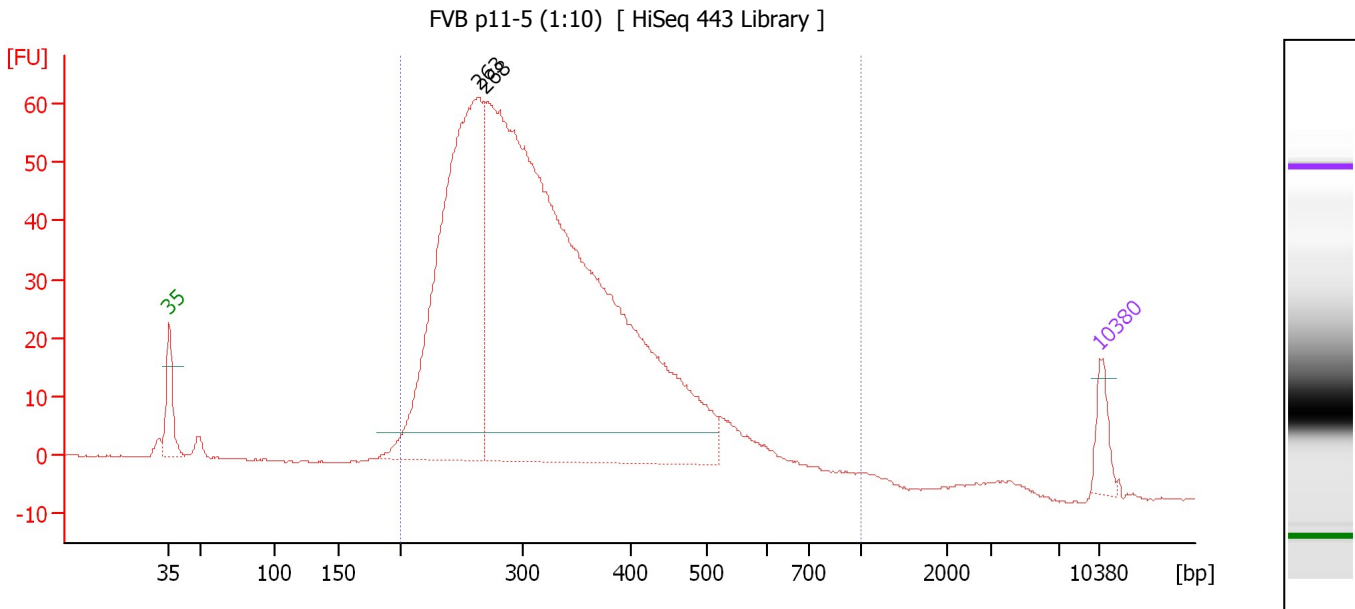
Region table for sample 10 : FVB p18-1 (1:10)

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	330	960.3	21,630.4	4,344.84	97	27.2

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-27\2016-04-27_005.xad

Created: 4/27/2016 7:38:26 PM
 Modified: 4/27/2016 8:24:33 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : FVB p11-5 (1:10)

Number of peaks found: 2 Corr. Area 1: 1,169.1
 Noise: 0.2

Peak table for sample 11 : FVB p11-5 (1:10)

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	263	2,017.80	11,632.2		66.20
3	268	4,817.53	27,190.8		66.71
4	10,380	75.00	10.9	Upper Marker	113.00

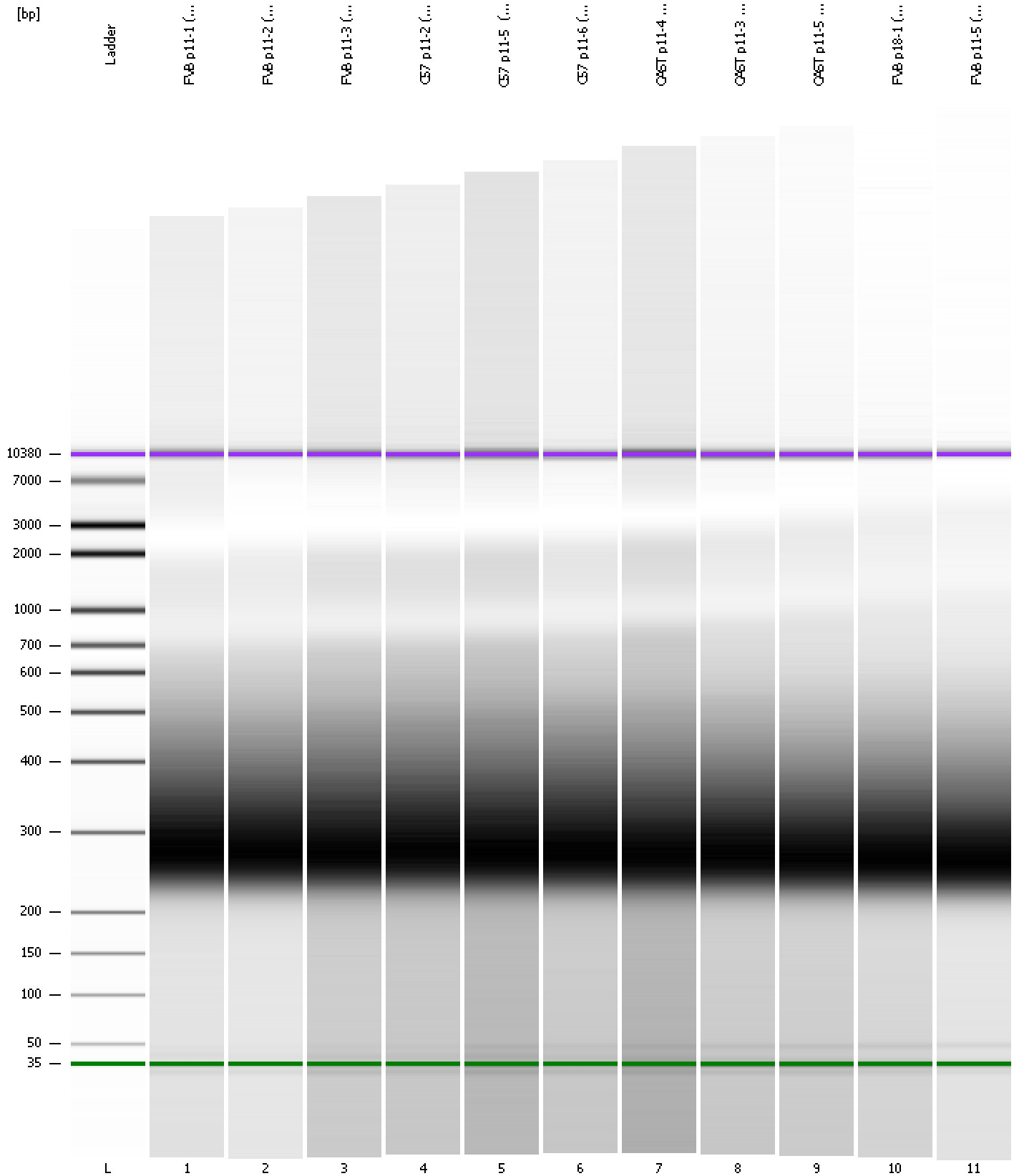
Region table for sample 11 : FVB p11-5 (1:10)

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	330	1,169.1	33,156.7	6,633.66	98	28.5

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-27\2016-04-27_005.xad

Created: 4/27/2016 7:38:26 PM
Modified: 4/27/2016 8:24:33 PM

Gel Image

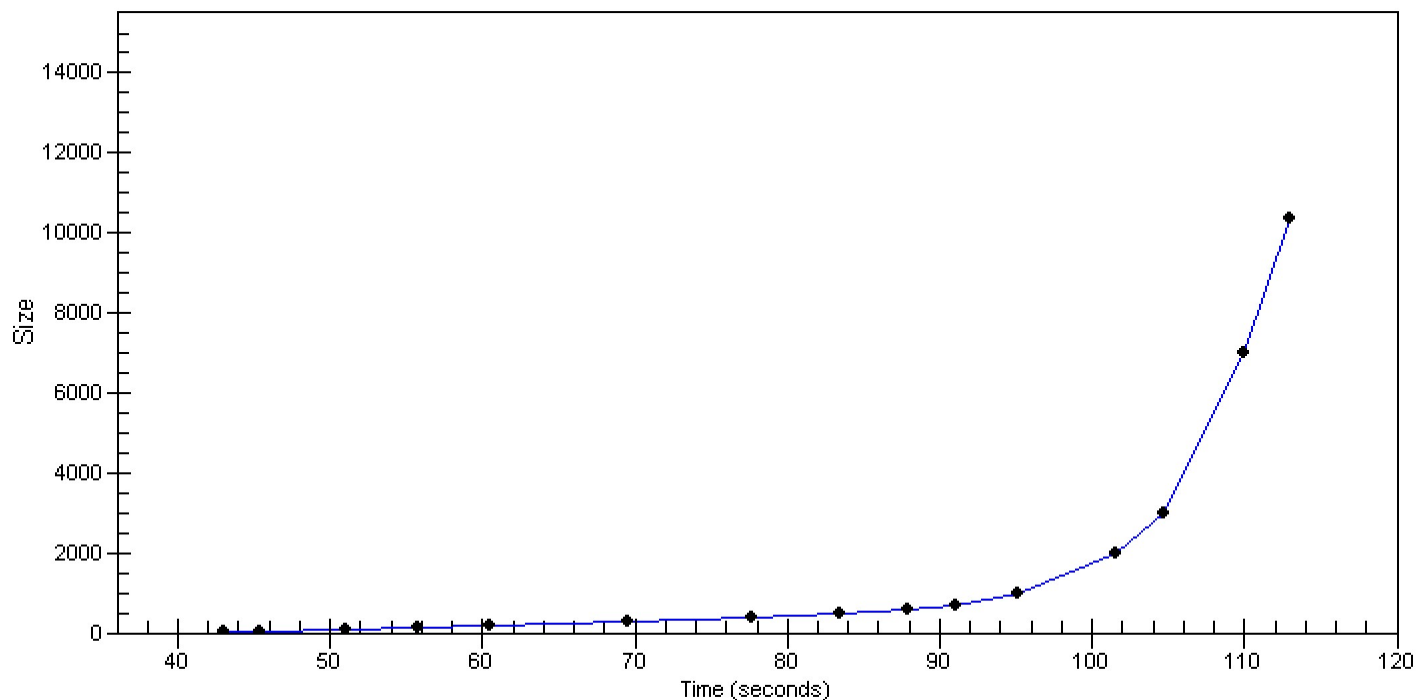


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-27\2016-04-27_005.xad

Created: 4/27/2016 7:38:26 PM
Modified: 4/27/2016 8:24:33 PM

Curves

Standard Curve



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-27\2016-04-27_005.xad

Created: 4/27/2016 7:38:26 PM
 Modified: 4/27/2016 8:24:33 PM

Run Logbook

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 12)		Instrument	Run		4/27/2016 8:19:42 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\2016-04-27\2016-04-27_005.xad)		Instrument	Run		4/27/2016 7:38:31 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		4/27/2016 7:38:31 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		4/27/2016 7:38:31 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		4/27/2016 7:38:31 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		4/27/2016 7:38:31 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		4/27/2016 7:38:31 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		4/27/2016 7:38:31 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1