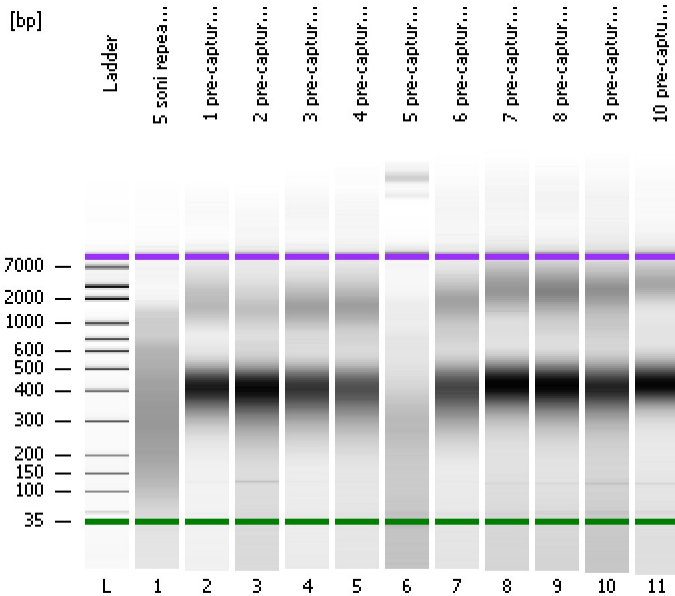


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-23\2016-03-23\_001.xad

Created: 3/23/2016 2:14:17 PM  
Modified: 3/23/2016 3:04:02 PM

**Electrophoresis File Run Summary**



Instrument Information:

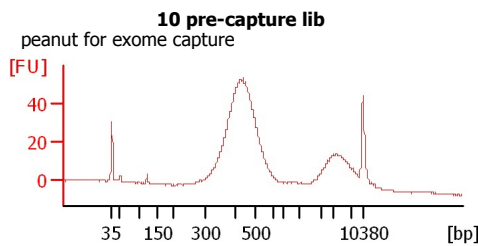
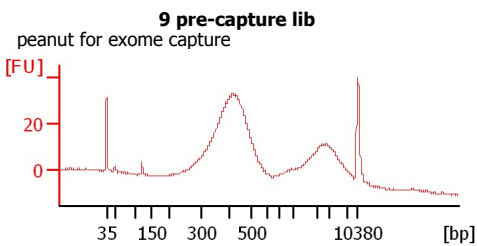
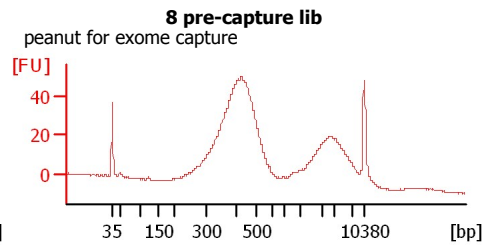
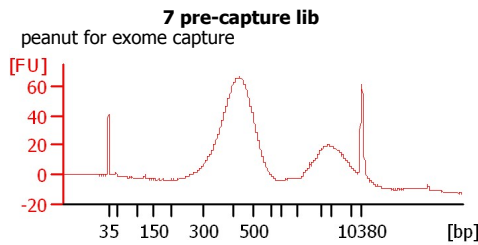
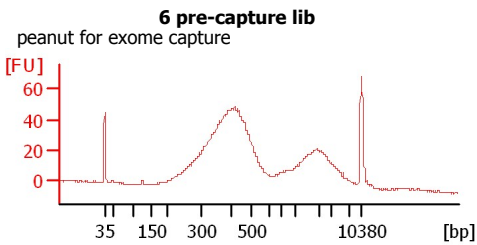
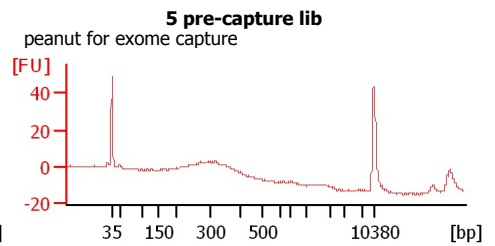
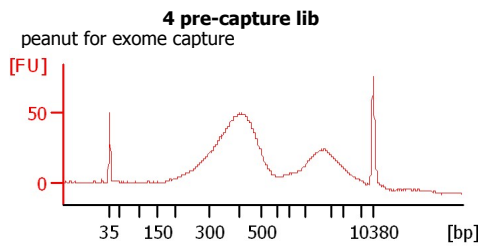
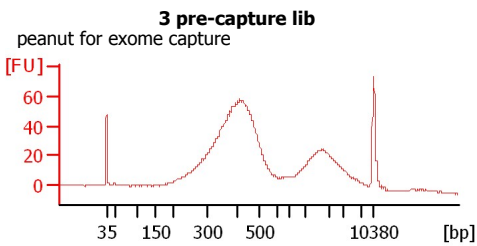
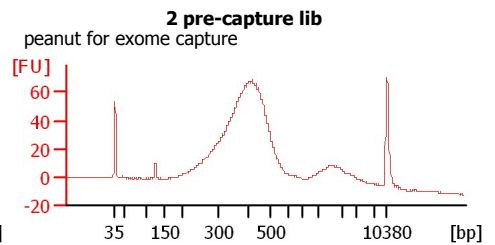
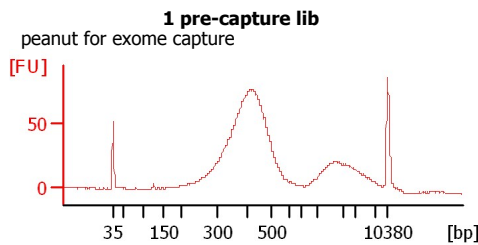
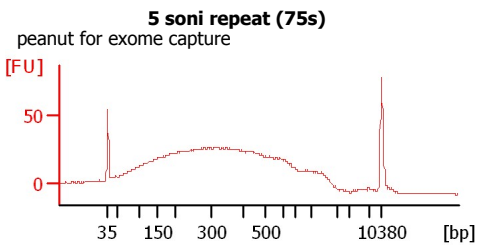
Instrument Name: DE13701086      Firmware: C.01.069  
Serial#: DE13701086      Type: G2938B

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\2016-03-23\2016-03-23\_001.xad

Created: 3/23/2016 2:14:17 PM  
Modified: 3/23/2016 3:04:02 PM

**Electrophoresis File Run Summary (Chip Summary)**

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
5 soni repeat (75s)	peanut for exome capture	<input type="checkbox"/>	✓			
1 pre-capture lib	peanut for exome capture	<input type="checkbox"/>	✓			
2 pre-capture lib	peanut for exome capture	<input type="checkbox"/>	✓			
3 pre-capture lib	peanut for exome capture	<input type="checkbox"/>	✓			
4 pre-capture lib	peanut for exome capture	<input type="checkbox"/>	✓			
5 pre-capture lib	peanut for exome capture	<input type="checkbox"/>	✓			
6 pre-capture lib	peanut for exome capture	<input type="checkbox"/>	✓			
7 pre-capture lib	peanut for exome capture	<input type="checkbox"/>	✓			
8 pre-capture lib	peanut for exome capture	<input type="checkbox"/>	✓			
9 pre-capture lib	peanut for exome capture	<input type="checkbox"/>	✓			
10 pre-capture lib	peanut for exome capture	<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\2016-03-23\2016-03-23\_001.xad

Created: 3/23/2016 2:14:17 PM  
Modified: 3/23/2016 3:04:02 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

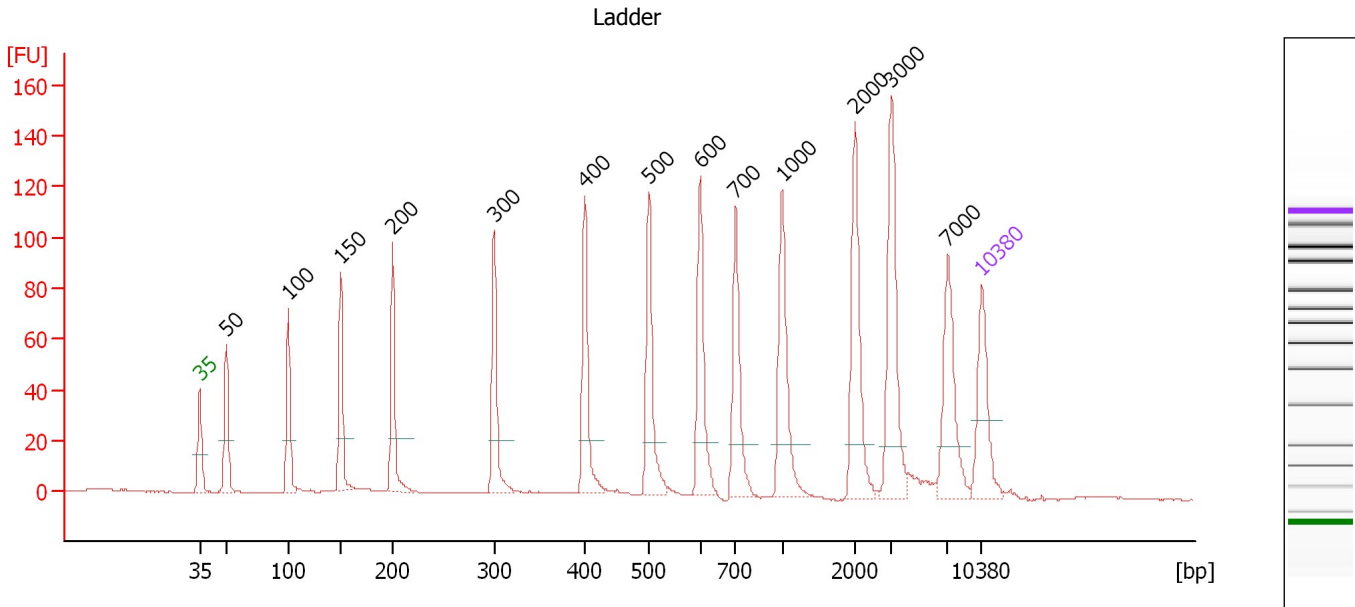
**Ladder**

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\2016-03-23\2016-03-23\_001.xad

Created: 3/23/2016 2:14:17 PM  
 Modified: 3/23/2016 3:04:02 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.2

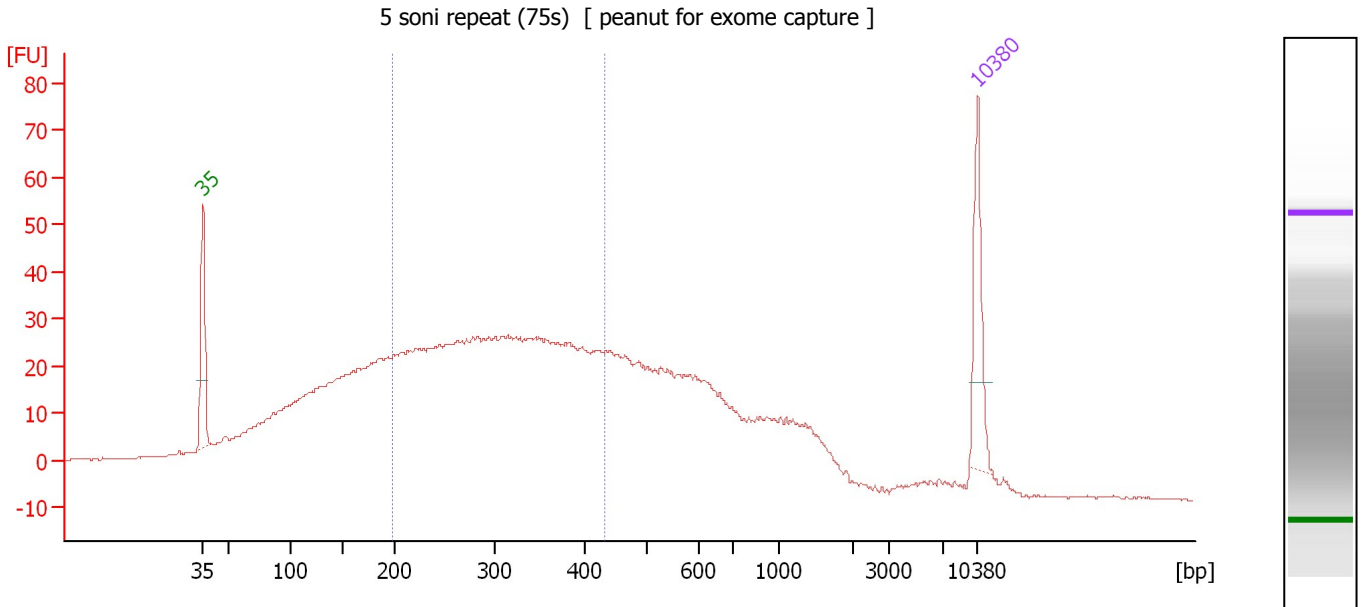
**Peak table for Ladder**

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	45.39
3	100	150.00	2,272.7	Ladder Peak	50.92
4	150	150.00	1,515.2	Ladder Peak	55.60
5	200	150.00	1,136.4	Ladder Peak	60.27
6	300	150.00	757.6	Ladder Peak	69.34
7	400	150.00	568.2	Ladder Peak	77.45
8	500	150.00	454.5	Ladder Peak	83.18
9	600	150.00	378.8	Ladder Peak	87.81
10	700	150.00	324.7	Ladder Peak	90.96
11	1,000	150.00	227.3	Ladder Peak	95.11
12	2,000	150.00	113.6	Ladder Peak	101.64
13	3,000	150.00	75.8	Ladder Peak	104.94
14	7,000	150.00	32.5	Ladder Peak	109.95
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-23\2016-03-23\_001.xad

Created: 3/23/2016 2:14:17 PM  
 Modified: 3/23/2016 3:04:02 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : 5 soni repeat (75s)**

Number of peaks found: 0                      Corr. Area 1: 757.9  
 Noise: 0.3

**Peak table for sample 1 : 5 soni repeat (75s)**

Pea k	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	10,380	75.00	10.9	Upper Marker	113.00

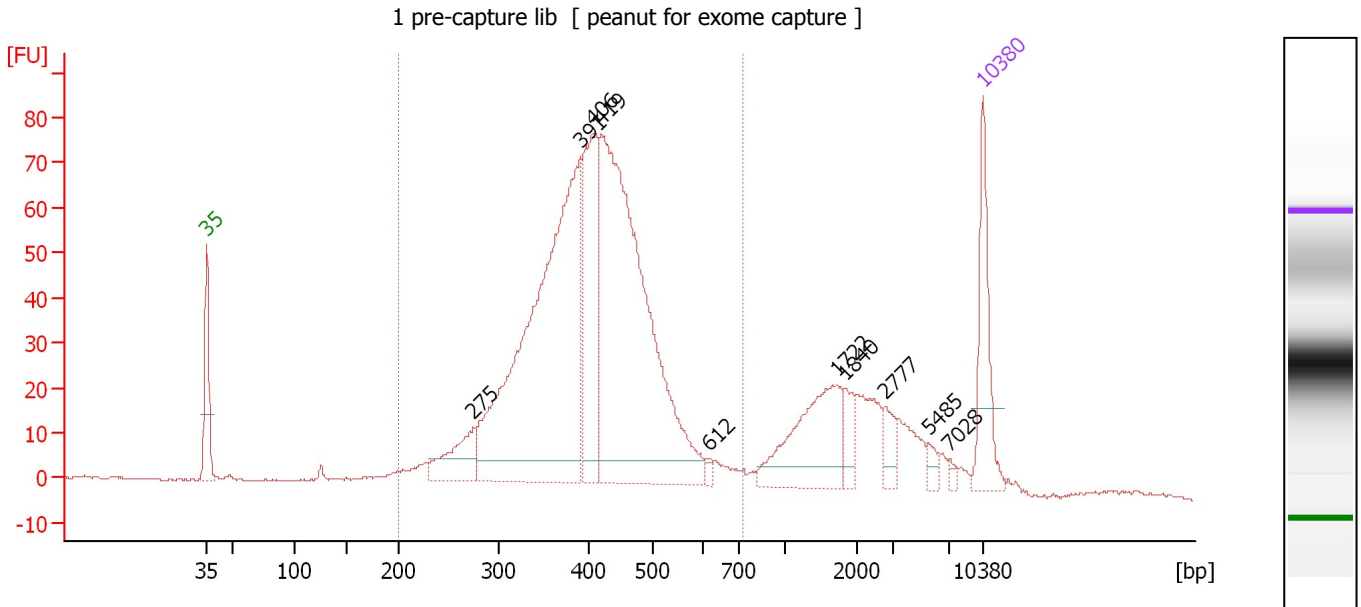
**Region table for sample 1 : 5 soni repeat (75s)**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
198	431	308	757.9	8,465.4	1,622.74	45	20.9

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-23\2016-03-23\_001.xad

Created: 3/23/2016 2:14:17 PM  
 Modified: 3/23/2016 3:04:02 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : 1 pre-capture lib**

Number of peaks found: 10                      Corr. Area 1: 1,205.8  
 Noise: 0.2

**Peak table for sample 2 : 1 pre-capture lib**

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	275	74.57	411.4		67.04
3	391	666.69	2,585.0		76.70
4	406	189.06	705.2		77.81
5	419	661.21	2,392.0		78.53
6	612	6.95	17.2		88.19
7	1,722	121.47	106.9		99.83
8	1,840	21.58	17.8		100.60
9	2,777	20.28	11.1		104.20
10	5,485	10.24	2.8		108.05
11	7,028	5.09	1.1		109.97
12	10,380	75.00	10.9	Upper Marker	113.00

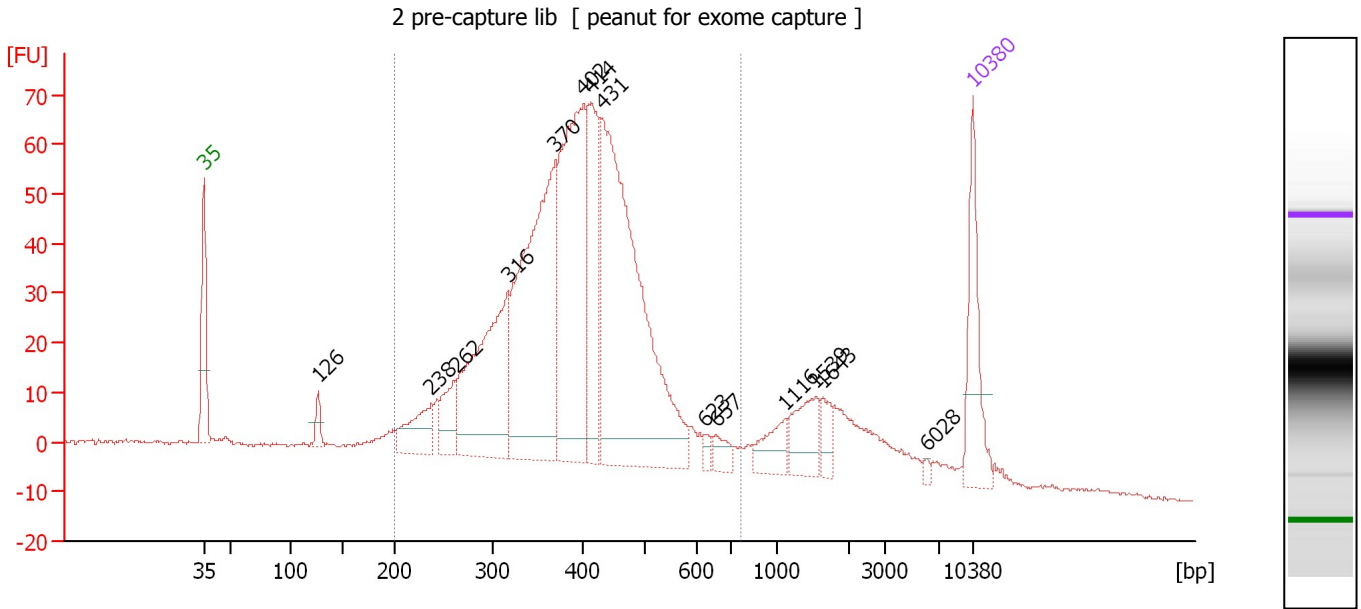
**Region table for sample 2 : 1 pre-capture lib**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	726	407	1,205.8	6,899.7	1,748.93	79	19.9

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-23\2016-03-23\_001.xad

Created: 3/23/2016 2:14:17 PM  
 Modified: 3/23/2016 3:04:02 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : 2 pre-capture lib**

Number of peaks found: 14                      Corr. Area 1: 1,300.7  
 Noise: 0.4

**Peak table for sample 3 : 2 pre-capture lib**

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	126	21.35	255.9		53.39
3	238	67.46	430.2		63.68
4	262	53.70	310.3		65.91
5	316	265.39	1,270.9		70.67
6	370	408.76	1,675.4		74.99
7	402	351.02	1,323.2		77.56
8	414	158.13	579.0		78.24
9	431	540.74	1,901.9		79.21
10	623	8.00	19.4		88.53
11	657	17.73	40.9		89.60
12	1,116	34.58	46.9		95.86
13	1,539	48.17	47.4		98.63
14	1,643	18.13	16.7		99.31
15	6,028	3.31	0.8		108.73
16	10,380	75.00	10.9	Upper Marker	113.00

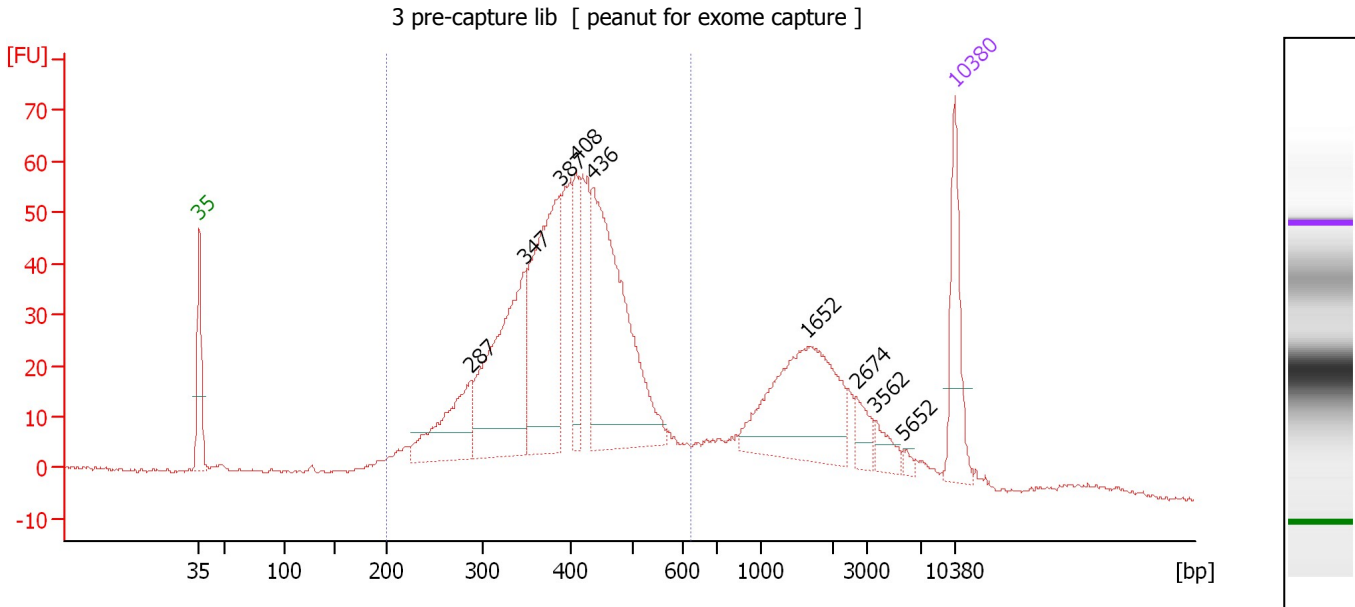
**Region table for sample 3 : 2 pre-capture lib**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	765	398	1,300.7	8,376.2	2,037.62	81	22.9

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-23\2016-03-23\_001.xad

Created: 3/23/2016 2:14:17 PM  
 Modified: 3/23/2016 3:04:02 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : 3 pre-capture lib**

Number of peaks found: 9                      Corr. Area 1: 1,042.7  
 Noise: 0.4

**Peak table for sample 4 : 3 pre-capture lib**

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	287	131.31	692.3		68.19
3	347	279.16	1,219.7		73.13
4	387	295.78	1,158.1		76.39
5	408	69.94	259.6		77.93
6	436	360.46	1,252.9		79.51
7	1,652	193.83	177.8		99.37
8	2,674	23.99	13.6		103.86
9	3,562	19.32	8.2		105.64
10	5,652	4.84	1.3		108.26
11	10,380	75.00	10.9	Upper Marker	113.00

**Region table for sample 4 : 3 pre-capture lib**

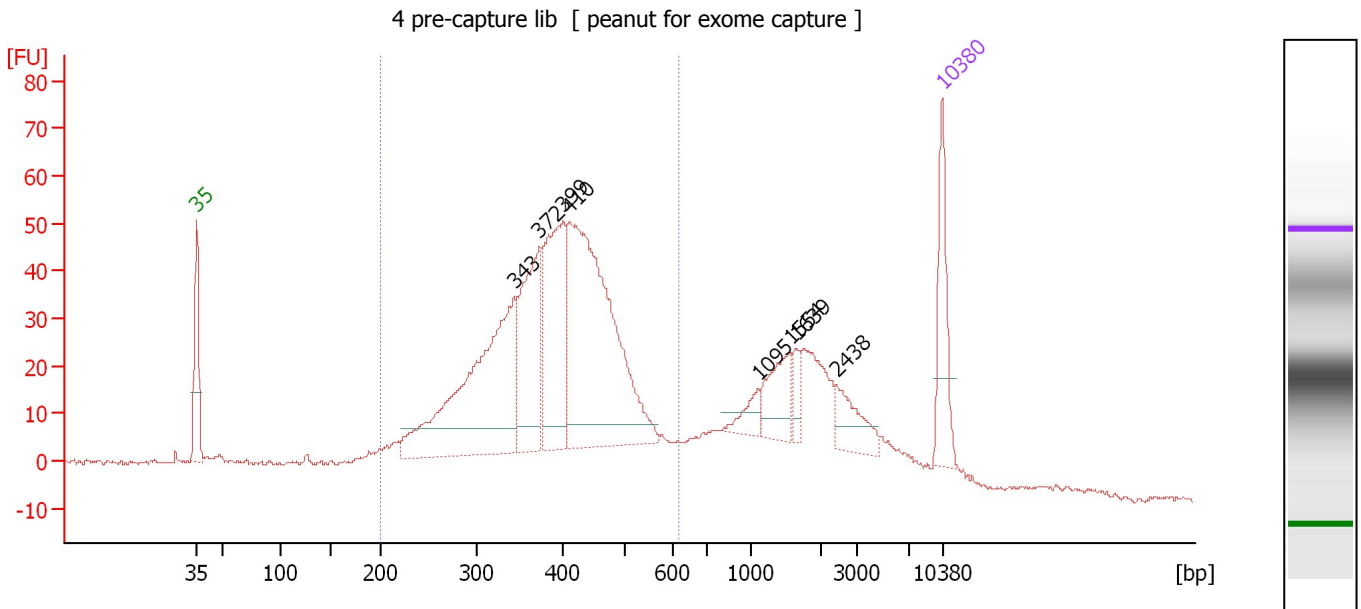
From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	624	395	1,042.7	7,142.3	1,741.48	72	20.6



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-23\2016-03-23\_001.xad

Created: 3/23/2016 2:14:17 PM  
 Modified: 3/23/2016 3:04:02 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : 4 pre-capture lib**

Number of peaks found: 8                      Corr. Area 1: 969.6  
 Noise: 0.5

**Peak table for sample 5 : 4 pre-capture lib**

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	343	428.59	1,895.6		72.79
3	372	203.60	828.8		75.20
4	399	227.26	862.2		77.40
5	410	504.12	1,864.9		78.00
6	1,095	25.23	34.9		95.73
7	1,554	58.40	56.9		98.73
8	1,639	19.42	18.0		99.28
9	2,438	44.08	27.4		103.09
10	10,380	75.00	10.9	Upper Marker	113.00

**Region table for sample 5 : 4 pre-capture lib**

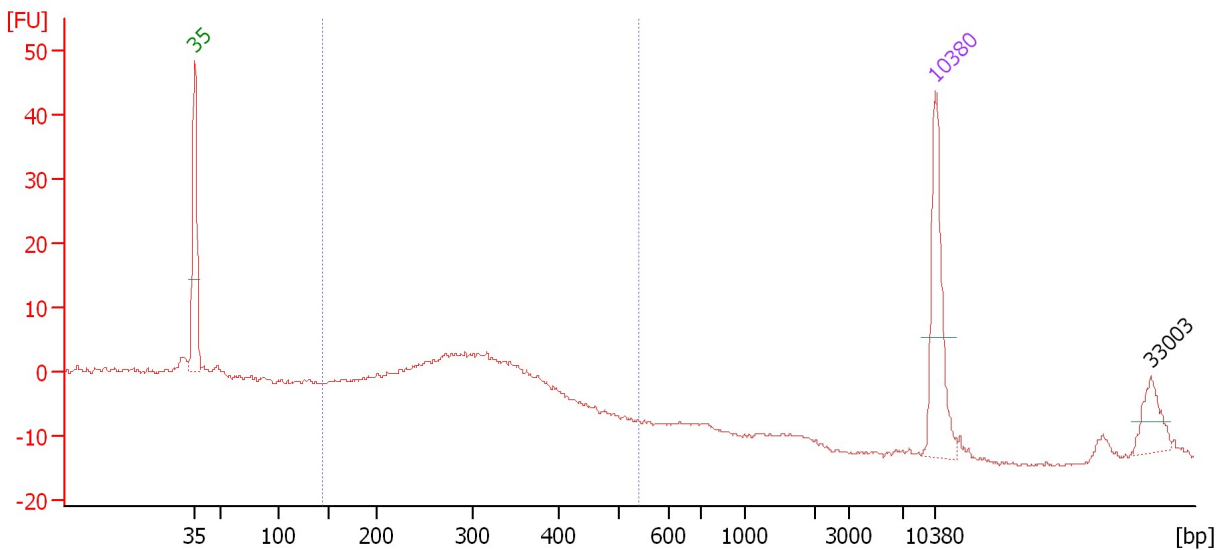
From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	617	390	969.6	7,347.5	1,764.68	69	21.1

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-23\2016-03-23\_001.xad

Created: 3/23/2016 2:14:17 PM  
 Modified: 3/23/2016 3:04:02 PM

**Electropherogram Summary Continued ...**

5 pre-capture lib [ peanut for exome capture ]



**Overall Results for sample 6 : 5 pre-capture lib**

Number of peaks found: 1                      Corr. Area 1: 139.9  
 Noise: 0.2

**Peak table for sample 6 : 5 pre-capture lib**

Pea k	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	10,380	75.00	10.9	Upper Marker	113.00
3	33,003	0.00	0.0		133.44

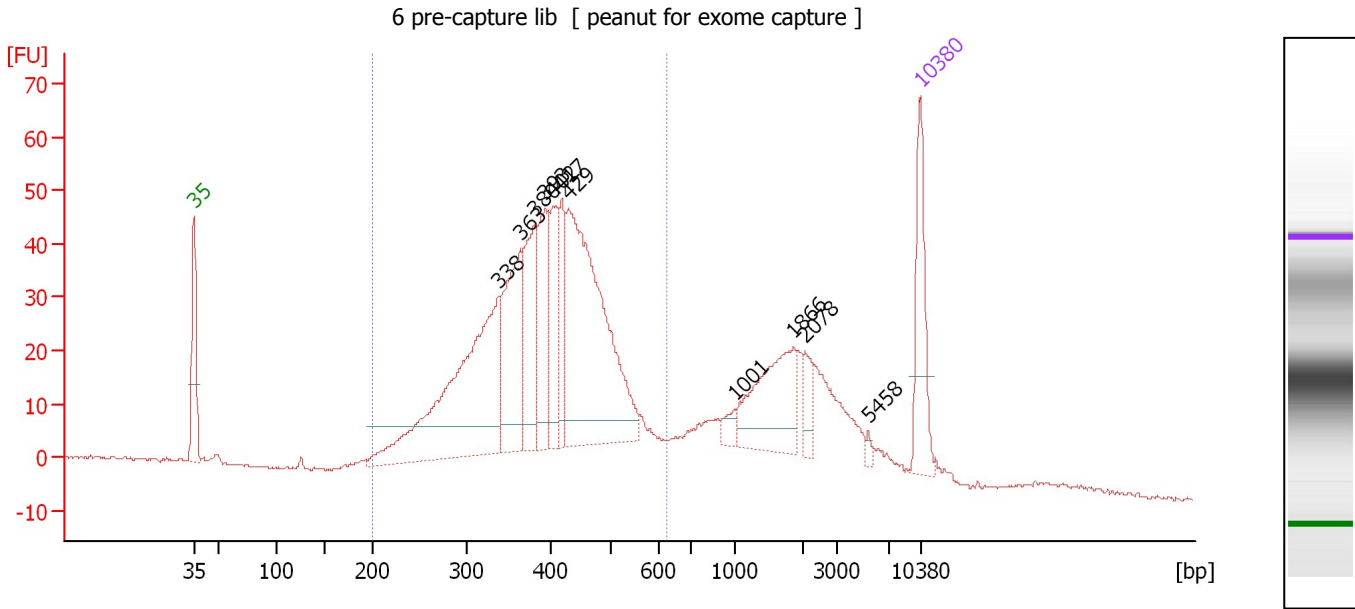
**Region table for sample 6 : 5 pre-capture lib**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
145	541	292	139.9	1,632.9	292.78	71	21.2

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-23\2016-03-23\_001.xad

Created: 3/23/2016 2:14:17 PM  
 Modified: 3/23/2016 3:04:02 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : 6 pre-capture lib**

Number of peaks found: 11                      Corr. Area 1: 904.0  
 Noise: 0.3

**Peak table for sample 7 : 6 pre-capture lib**

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	338	386.30	1,733.2		72.40
3	363	172.79	721.1		74.45
4	380	118.25	471.3		75.84
5	393	115.14	444.1		76.87
6	402	86.17	324.4		77.59
7	417	65.45	237.9		78.41
8	429	395.39	1,395.4		79.13
9	1,001	12.50	18.9		95.11
10	1,866	105.95	86.0		100.77
11	2,078	22.66	16.5		101.90
12	5,458	4.08	1.1		108.01
13	10,380	75.00	10.9	Upper Marker	113.00

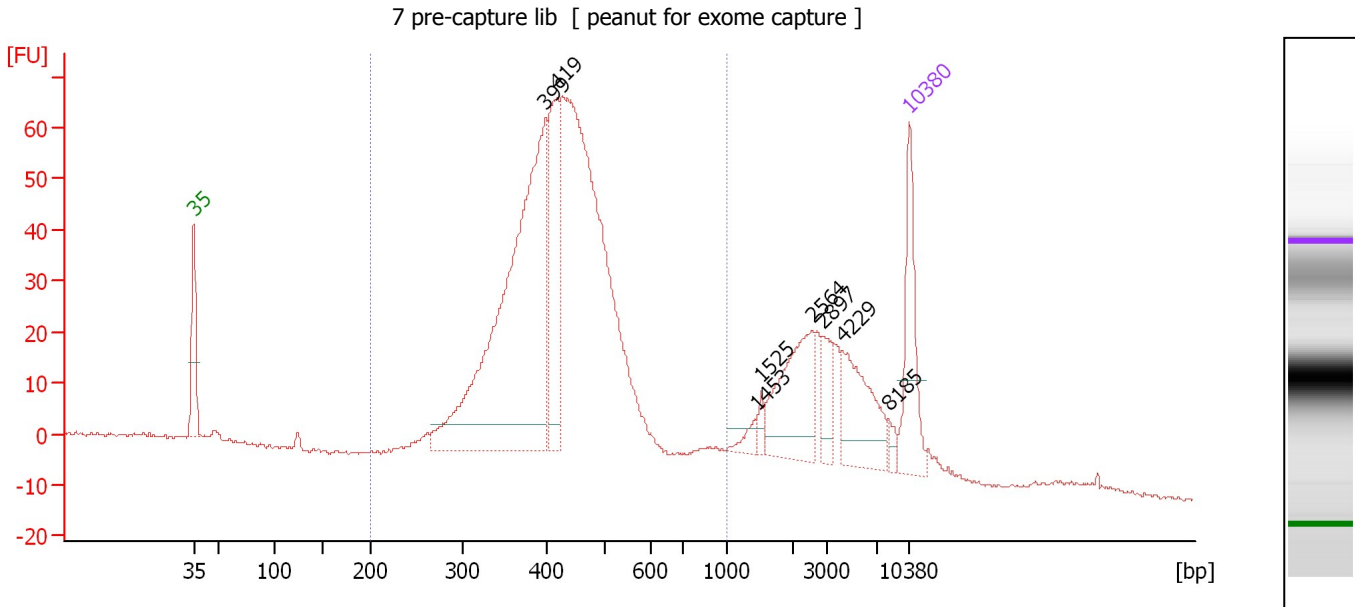
**Region table for sample 7 : 6 pre-capture lib**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	626	395	904.0	6,761.8	1,650.31	72	20.9

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-23\2016-03-23\_001.xad

Created: 3/23/2016 2:14:17 PM  
 Modified: 3/23/2016 3:04:02 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : 7 pre-capture lib**

Number of peaks found: 8                      Corr. Area 1: 997.2  
 Noise: 0.4

**Peak table for sample 8 : 7 pre-capture lib**

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	399	601.04	2,280.3		77.40
3	419	152.07	549.7		78.55
4	1,453	11.60	12.1		98.07
5	1,525	8.30	8.2		98.54
6	2,564	102.73	60.7		103.50
7	2,897	32.13	16.8		104.60
8	4,229	84.20	30.2		106.48
9	8,185	8.78	1.6		111.02
10	10,380	75.00	10.9	Upper Marker	113.00

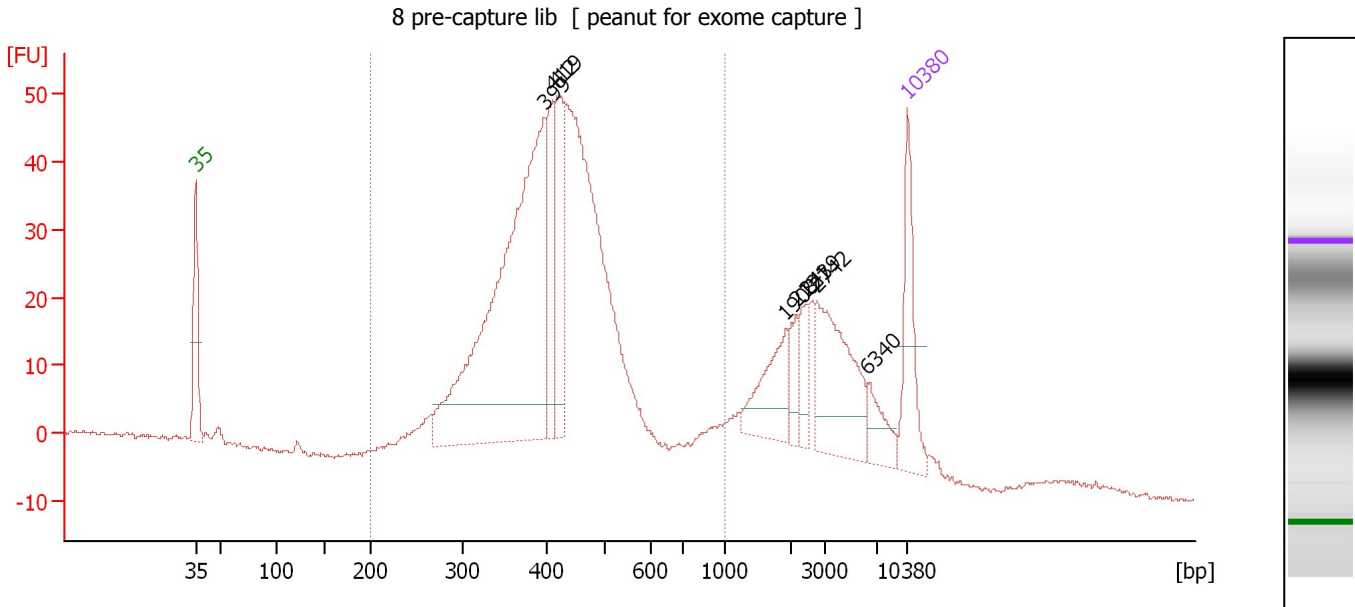
**Region table for sample 8 : 7 pre-capture lib**

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	433	997.2	5,985.7	1,618.14	74	22.3

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-23\2016-03-23\_001.xad

Created: 3/23/2016 2:14:17 PM  
 Modified: 3/23/2016 3:04:02 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : 8 pre-capture lib**

Number of peaks found: 8                      Corr. Area 1: 812.2  
 Noise: 0.4

**Peak table for sample 9 : 8 pre-capture lib**

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	399	651.42	2,475.6		77.34
3	412	92.74	341.2		78.13
4	419	121.39	438.8		78.55
5	1,908	68.72	54.6		101.04
6	2,121	25.42	18.2		102.04
7	2,439	28.66	17.8		103.09
8	2,742	128.21	70.8		104.09
9	6,340	33.89	8.1		109.12
10	10,380	75.00	10.9	Upper Marker	113.00

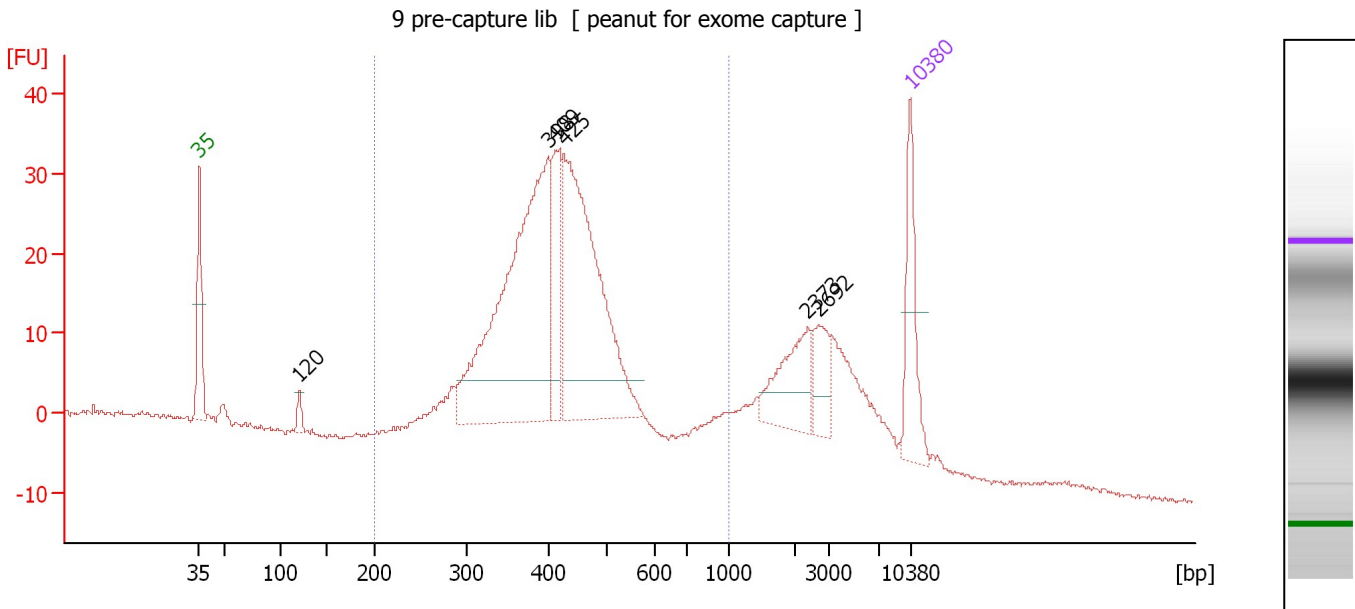
**Region table for sample 9 : 8 pre-capture lib**

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	431	812.2	6,644.0	1,752.40	74	26.5

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-23\2016-03-23\_001.xad

Created: 3/23/2016 2:14:17 PM  
 Modified: 3/23/2016 3:04:02 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : 9 pre-capture lib**

Number of peaks found: 6                      Corr. Area 1: 574.4  
 Noise: 0.3

**Peak table for sample 10 : 9 pre-capture lib**

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	120	15.85	199.8		52.81
3	398	535.40	2,036.4		77.32
4	409	106.02	393.1		77.95
5	425	403.67	1,438.6		78.89
6	2,373	76.29	48.7		102.87
7	2,692	42.75	24.1		103.92
8	10,380	75.00	10.9	Upper Marker	113.00

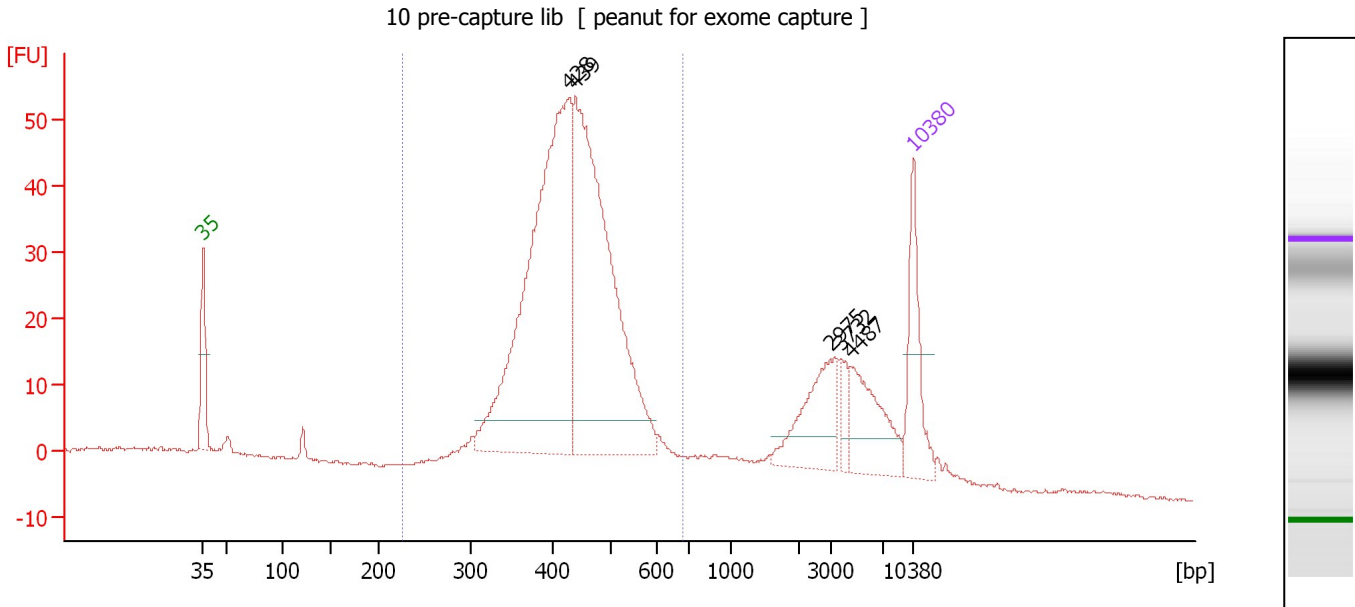
**Region table for sample 10 : 9 pre-capture lib**

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	432	574.4	5,810.7	1,522.20	71	28.8

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-23\2016-03-23\_001.xad

Created: 3/23/2016 2:14:17 PM  
 Modified: 3/23/2016 3:04:02 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : 10 pre-capture lib**

Number of peaks found: 5                      Corr. Area 1: 670.1  
 Noise: 0.2

**Peak table for sample 11 : 10 pre-capture lib**

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	428	647.02	2,290.8		79.05
3	439	561.04	1,936.5		79.68
4	2,975	89.20	45.4		104.85
5	3,732	18.52	7.5		105.85
6	4,487	80.73	27.3		106.80
7	10,380	75.00	10.9	Upper Marker	113.00

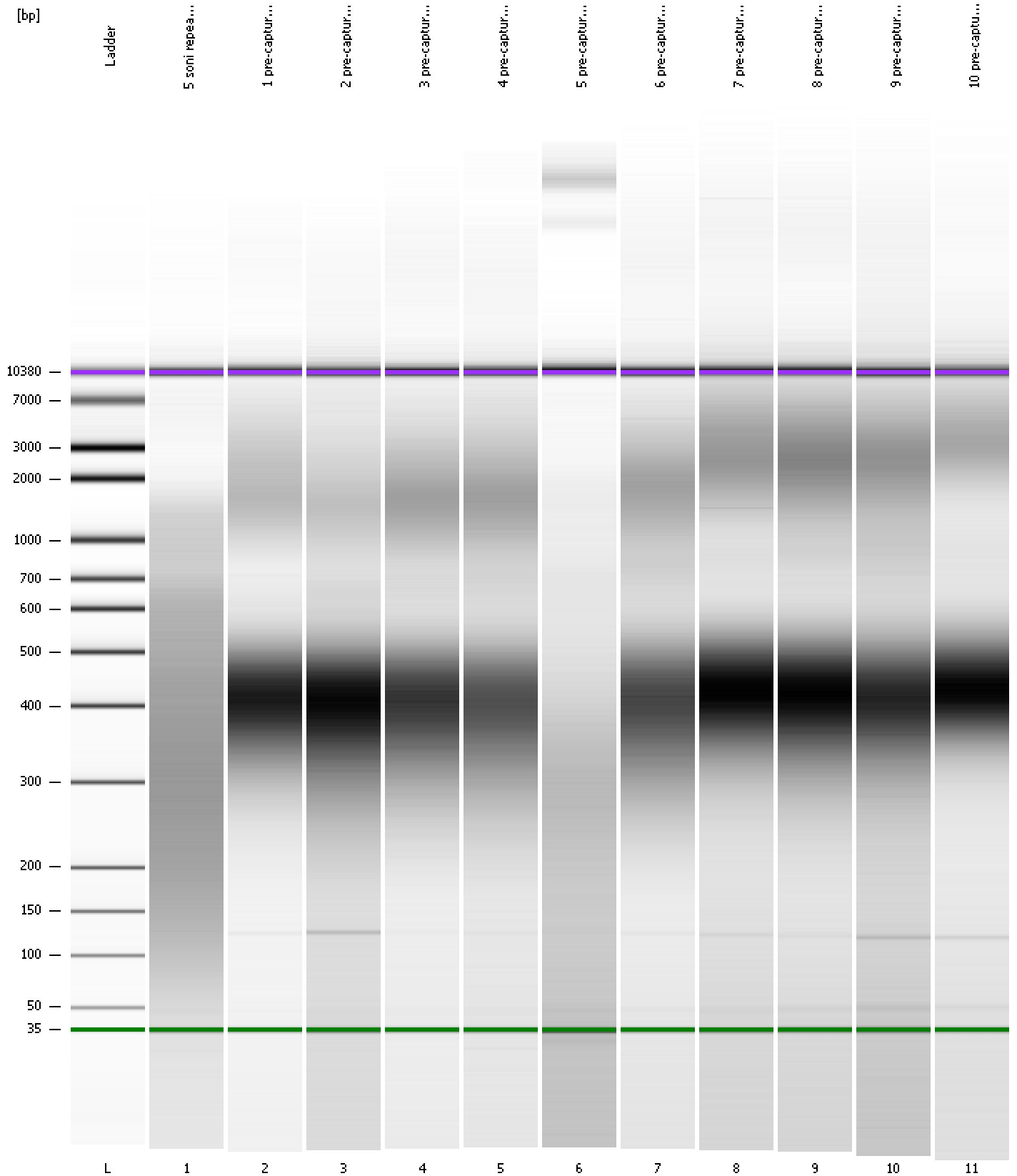
**Region table for sample 11 : 10 pre-capture lib**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
227	679	435	670.1	5,090.9	1,415.31	75	15.8

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-23\2016-03-23\_001.xad

Created: 3/23/2016 2:14:17 PM  
Modified: 3/23/2016 3:04:02 PM

**Gel Image**



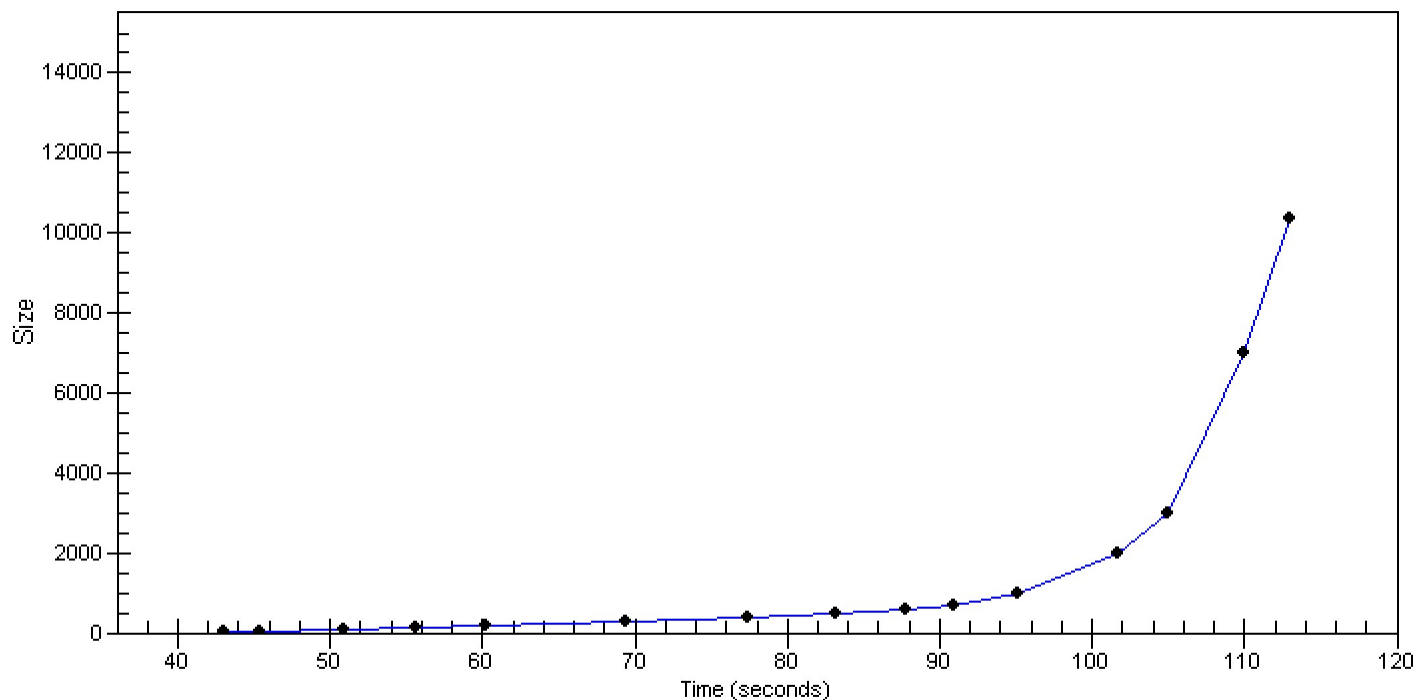


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-23\2016-03-23\_001.xad

Created: 3/23/2016 2:14:17 PM  
Modified: 3/23/2016 3:04:02 PM

**Curves**

**Standard Curve**



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-23\2016-03-23\_001.xad

Created: 3/23/2016 2:14:17 PM  
 Modified: 3/23/2016 3:04:02 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		3/23/2016 2:55:36 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\2016-03-23\2016-03-23_001.xad)		Instrument	Run		3/23/2016 2:14:22 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		3/23/2016 2:14:22 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		3/23/2016 2:14:22 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		3/23/2016 2:14:22 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		3/23/2016 2:14:22 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		3/23/2016 2:14:22 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		3/23/2016 2:14:22 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1