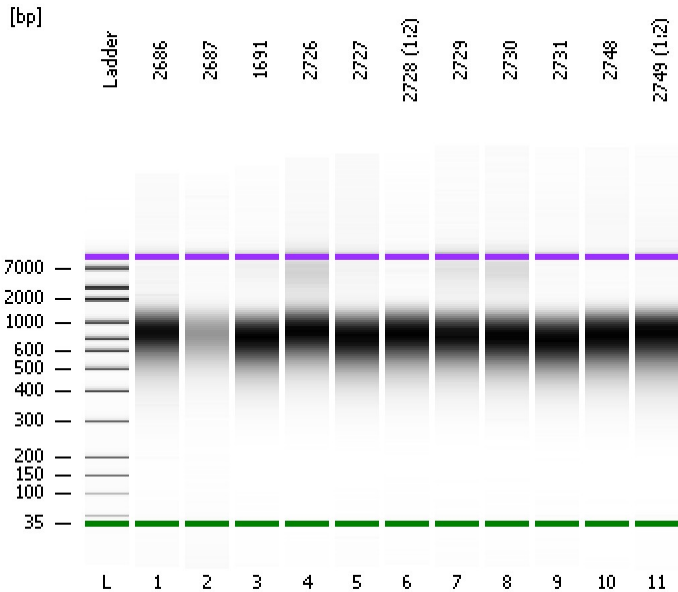


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-20\2016-10-20\_006.xad

Created: 10/20/2016 4:20:54 PM  
Modified: 10/20/2016 5:21:51 PM

**Electrophoresis File Run Summary**



Instrument Information:

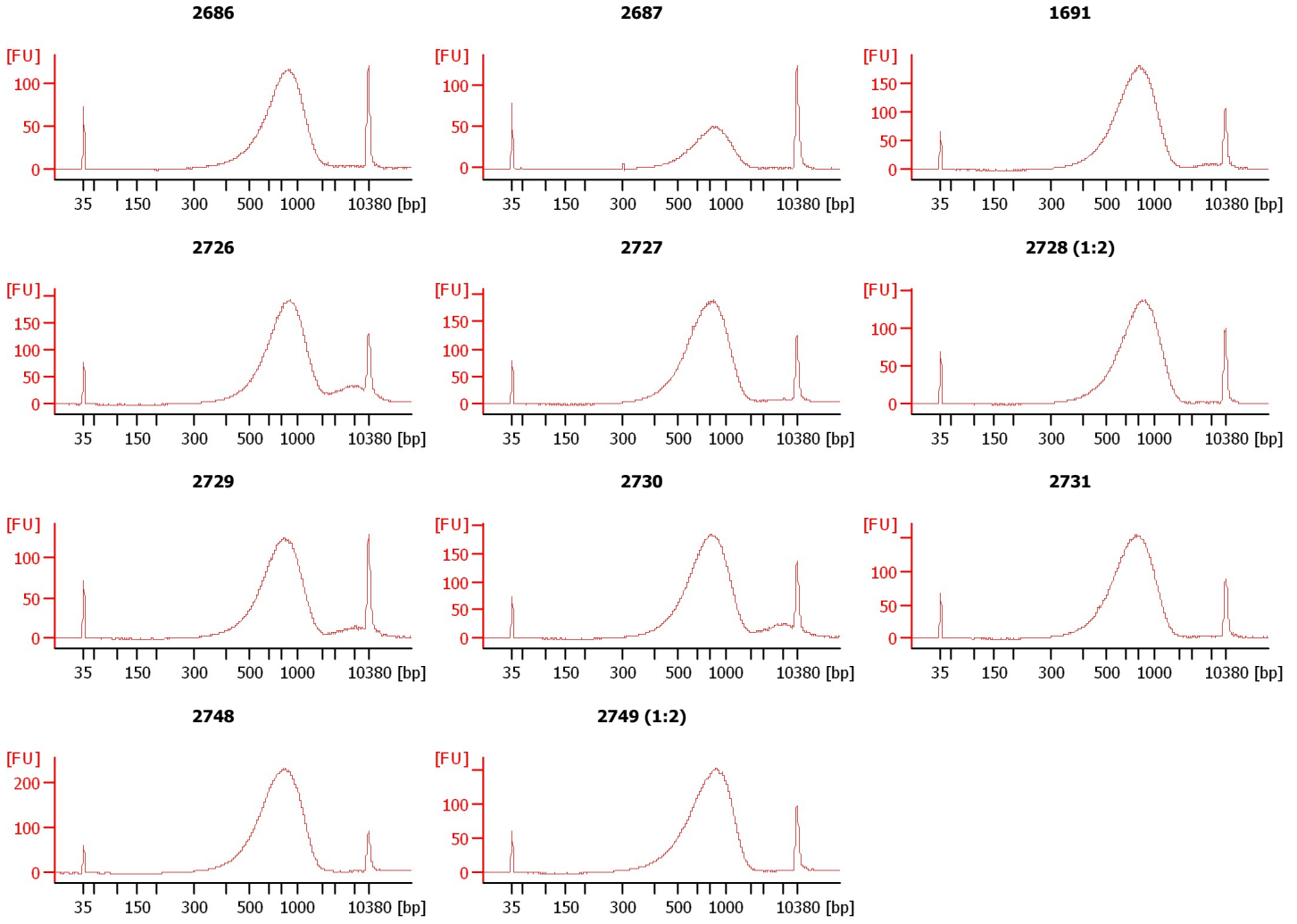
Instrument Name: DE13701086      Firmware: C.01.069  
Serial#: DE13701086      Type: G2938B

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\2016-10-20\2016-10-20\_006.xad

Created: 10/20/2016 4:20:54 PM  
 Modified: 10/20/2016 5:21:51 PM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
2686		<input type="checkbox"/>	✓			
2687		<input type="checkbox"/>	✓			
1691		<input type="checkbox"/>	✓			
2726		<input type="checkbox"/>	✓			
2727		<input type="checkbox"/>	✓			
2728 (1:2)		<input type="checkbox"/>	✓			
2729		<input type="checkbox"/>	✓			
2730		<input type="checkbox"/>	✓			
2731		<input type="checkbox"/>	✓			
2748		<input type="checkbox"/>	✓			
2749 (1:2)		<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\2016-10-20\2016-10-20\_006.xad

Created: 10/20/2016 4:20:54 PM  
Modified: 10/20/2016 5:21:51 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

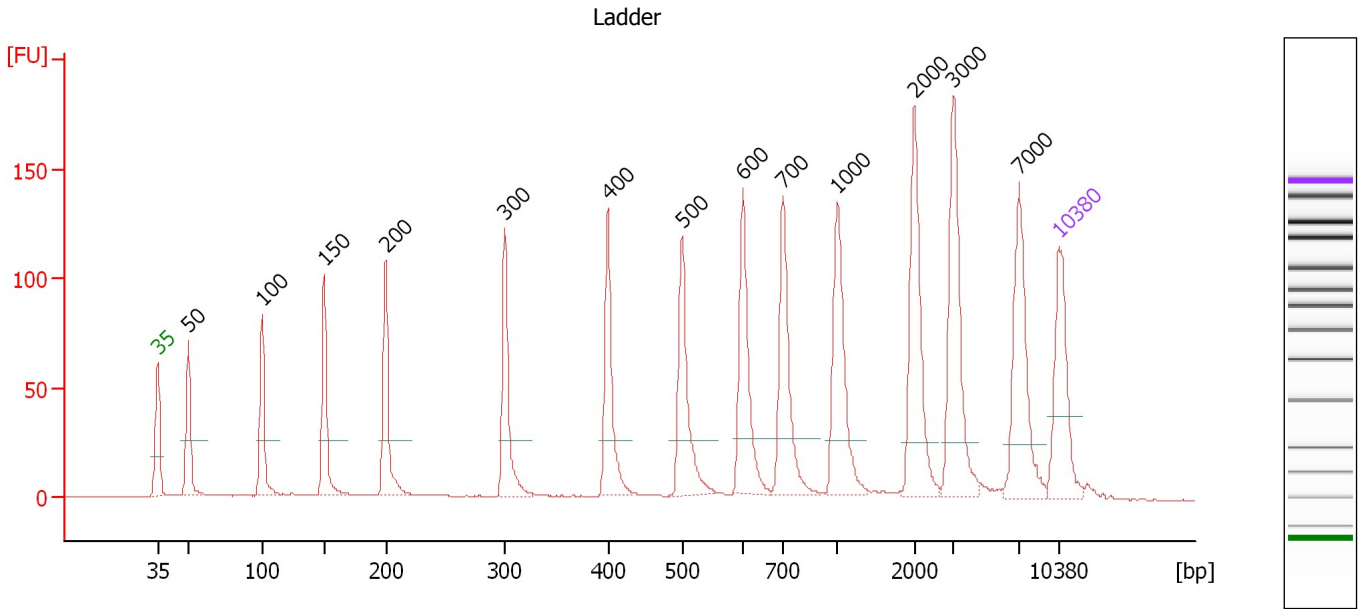
**Ladder**

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\2016-10-20\2016-10-20\_006.xad

Created: 10/20/2016 4:20:54 PM  
 Modified: 10/20/2016 5:21:51 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.2

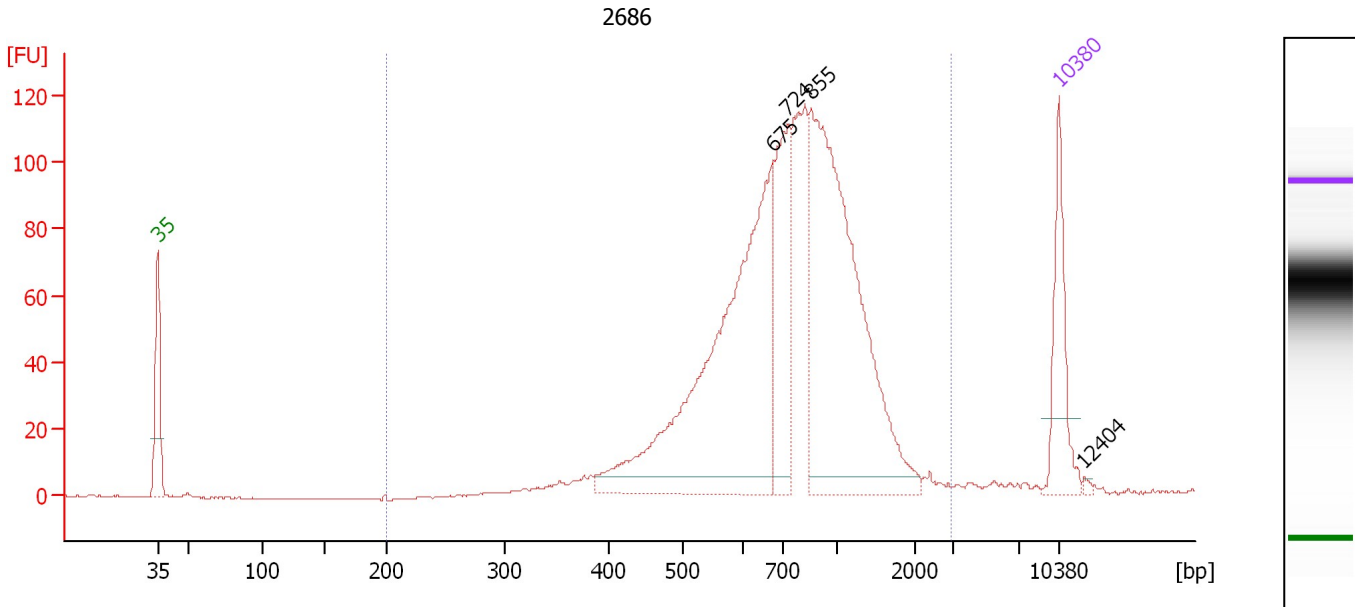
**Peak table for Ladder**

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	45.37
3	100	150.00	2,272.7	Ladder Peak	51.13
4	150	150.00	1,515.2	Ladder Peak	55.93
5	200	150.00	1,136.4	Ladder Peak	60.72
6	300	150.00	757.6	Ladder Peak	69.96
7	400	150.00	568.2	Ladder Peak	77.95
8	500	150.00	454.5	Ladder Peak	83.71
9	600	150.00	378.8	Ladder Peak	88.46
10	700	150.00	324.7	Ladder Peak	91.55
11	1,000	150.00	227.3	Ladder Peak	95.77
12	2,000	150.00	113.6	Ladder Peak	101.77
13	3,000	150.00	75.8	Ladder Peak	104.82
14	7,000	150.00	32.5	Ladder Peak	109.85
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-20\2016-10-20\_006.xad

Created: 10/20/2016 4:20:54 PM  
 Modified: 10/20/2016 5:21:51 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : 2686**

Number of peaks found: 4                      Corr. Area 1: 1,501.1  
 Noise: 0.2

**Peak table for sample 1 : 2686**

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	675	565.97	1,270.6		90.78
3	724	160.30	335.6		91.89
4	855	512.02	907.8		93.72
5	10,380	75.00	10.9	Upper Marker	113.00
6	12,404	0.00	0.0		114.88

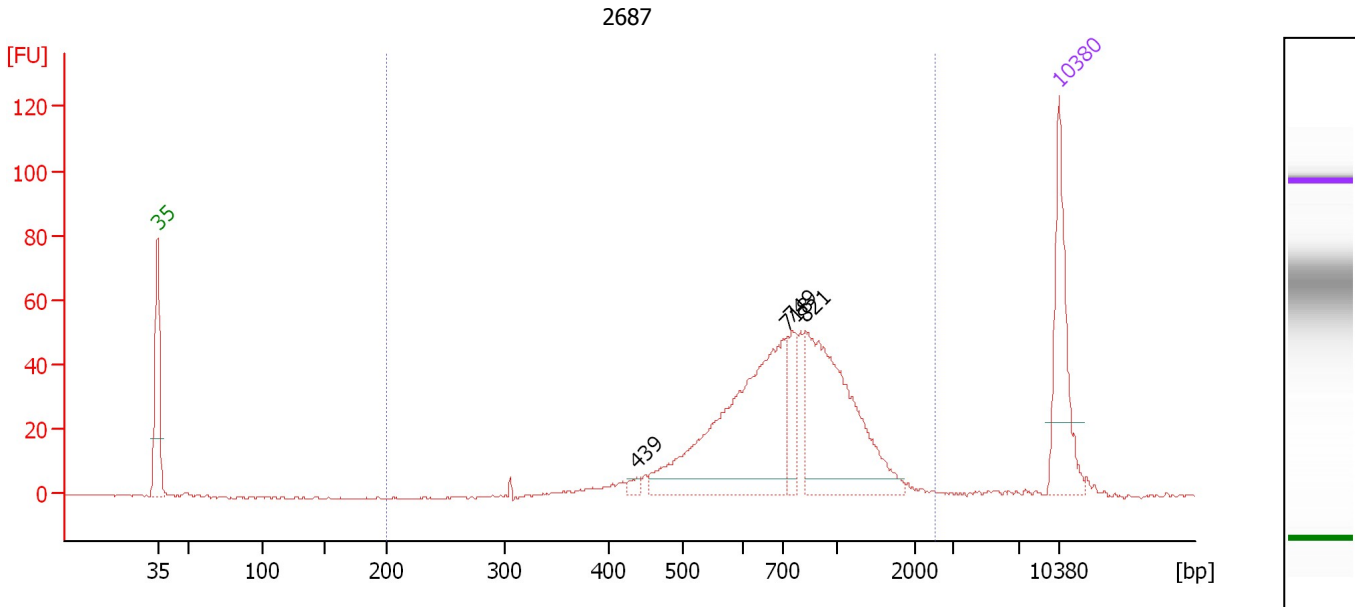
**Region table for sample 1 : 2686**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	2,940	830	1,501.1	3,141.7	1,455.46	97	41.1

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-20\2016-10-20\_006.xad

Created: 10/20/2016 4:20:54 PM  
 Modified: 10/20/2016 5:21:51 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : 2687**

Number of peaks found: 4                      Corr. Area 1: 655.6  
 Noise: 0.3

**Peak table for sample 2 : 2687**

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	439	5.77	19.9		80.21
3	718	267.57	565.0		91.80
4	749	40.58	82.1		92.24
5	821	204.07	376.5		93.26
6	10,380	75.00	10.9	Upper Marker	113.00

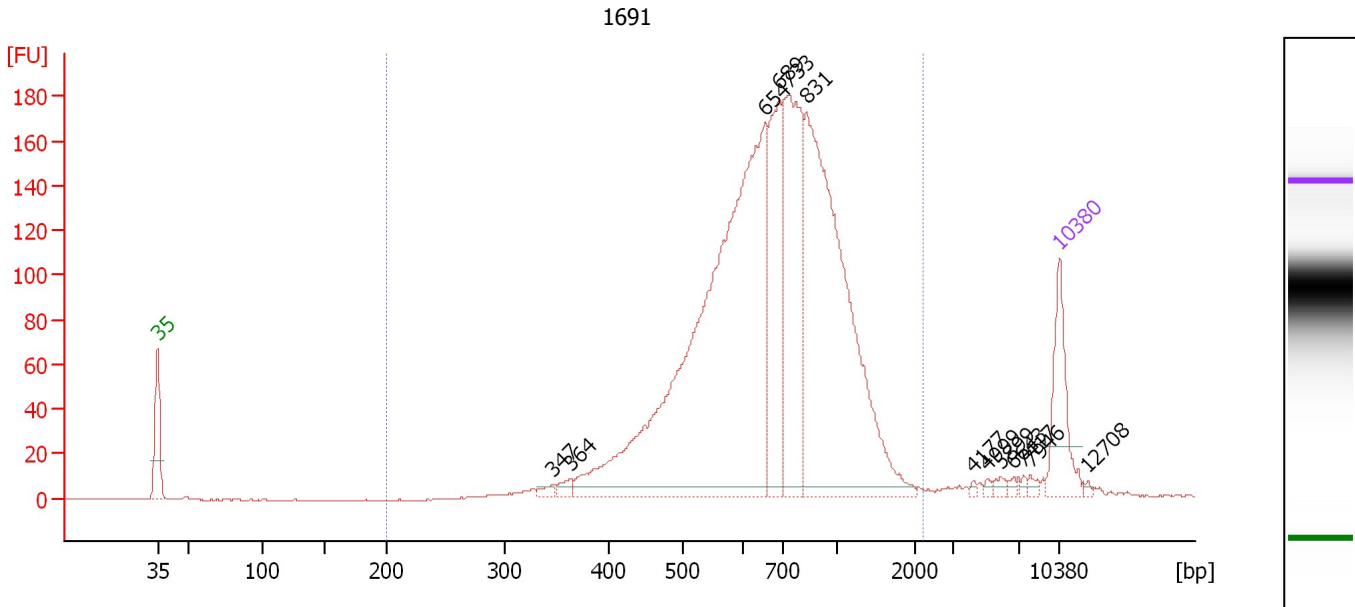
**Region table for sample 2 : 2687**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	2,494	811	655.6	1,238.7	573.34	96	38.3

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-20\2016-10-20\_006.xad

Created: 10/20/2016 4:20:54 PM  
 Modified: 10/20/2016 5:21:51 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : 1691**

Number of peaks found: 13                      Corr. Area 1: 2,436.1  
 Noise: 0.3

**Peak table for sample 3 : 1691**

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	347	9.72	42.4		73.74
3	364	11.38	47.4		75.07
4	654	1,018.48	2,358.0		90.14
5	689	212.46	466.9		91.23
6	733	292.37	604.5		92.01
7	831	629.59	1,147.9		93.39
8	4,177	2.71	1.0		106.30
9	4,999	3.74	1.1		107.33
10	5,899	6.25	1.6		108.47
11	6,643	3.89	0.9		109.40
12	7,417	3.80	0.8		110.24
13	7,946	5.28	1.0		110.73
14	10,380	75.00	10.9	Upper Marker	113.00
15	12,708	0.00	0.0		115.17

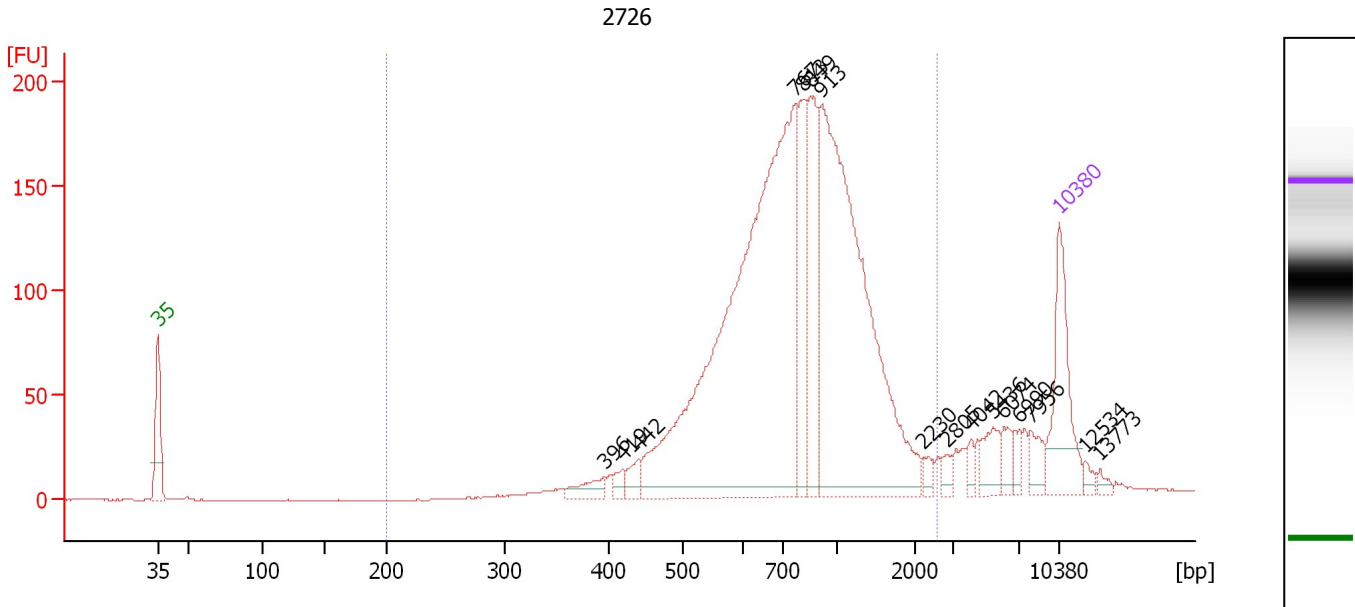
**Region table for sample 3 : 1691**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	2,228	743	2,436.1	5,167.5	2,223.33	97	35.5

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-20\2016-10-20\_006.xad

Created: 10/20/2016 4:20:54 PM  
 Modified: 10/20/2016 5:21:51 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : 2726**

Number of peaks found: 16                      Corr. Area 1: 2,433.9  
 Noise: 0.3

**Peak table for sample 4 : 2726**

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	396	20.77	79.4		77.65
3	419	10.05	36.3		79.05
4	442	17.52	60.1		80.36
5	767	752.40	1,486.8		92.49
6	813	97.52	181.7		93.14
7	849	114.94	205.1		93.64
8	913	497.68	825.8		94.55
9	2,230	8.33	5.7		102.47
10	2,805	8.26	4.5		104.22
11	4,042	8.13	3.0		106.13
12	5,436	23.70	6.6		107.89
13	6,074	14.82	3.7		108.69
14	6,990	10.62	2.3		109.84
15	7,956	16.85	3.2		110.74
16	10,380	75.00	10.9	Upper Marker	113.00
17	12,534	0.00	0.0		115.01
18	13,773	0.00	0.0		116.16

**Region table for sample 4 : 2726**

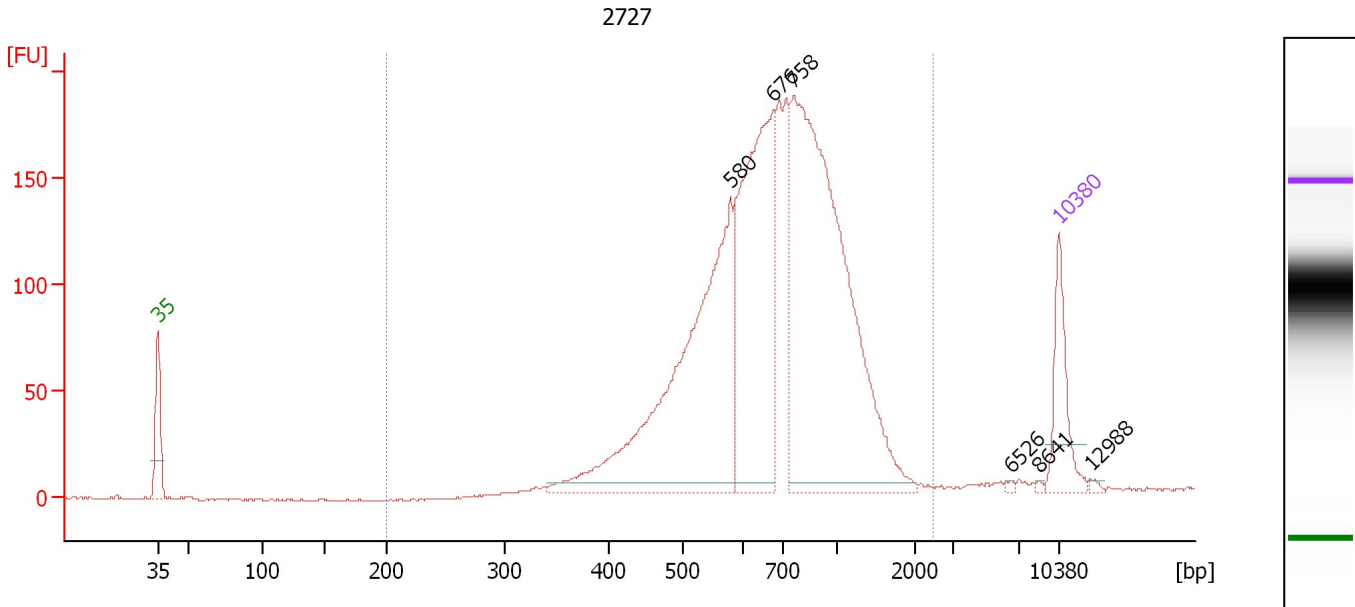
From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	2,559	866	2,433.9	3,179.4	1,536.02	91	41.4



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-20\2016-10-20\_006.xad

Created: 10/20/2016 4:20:54 PM  
 Modified: 10/20/2016 5:21:51 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : 2727**

Number of peaks found: 6                      Corr. Area 1: 2,566.4  
 Noise: 0.4

**Peak table for sample 5 : 2727**

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	580	626.74	1,637.2		87.51
3	676	492.61	1,104.9		90.80
4	758	847.86	1,695.5		92.36
5	6,526	2.50	0.6		109.26
6	8,641	2.06	0.4		111.38
7	10,380	75.00	10.9	Upper Marker	113.00
8	12,988	0.00	0.0		115.43

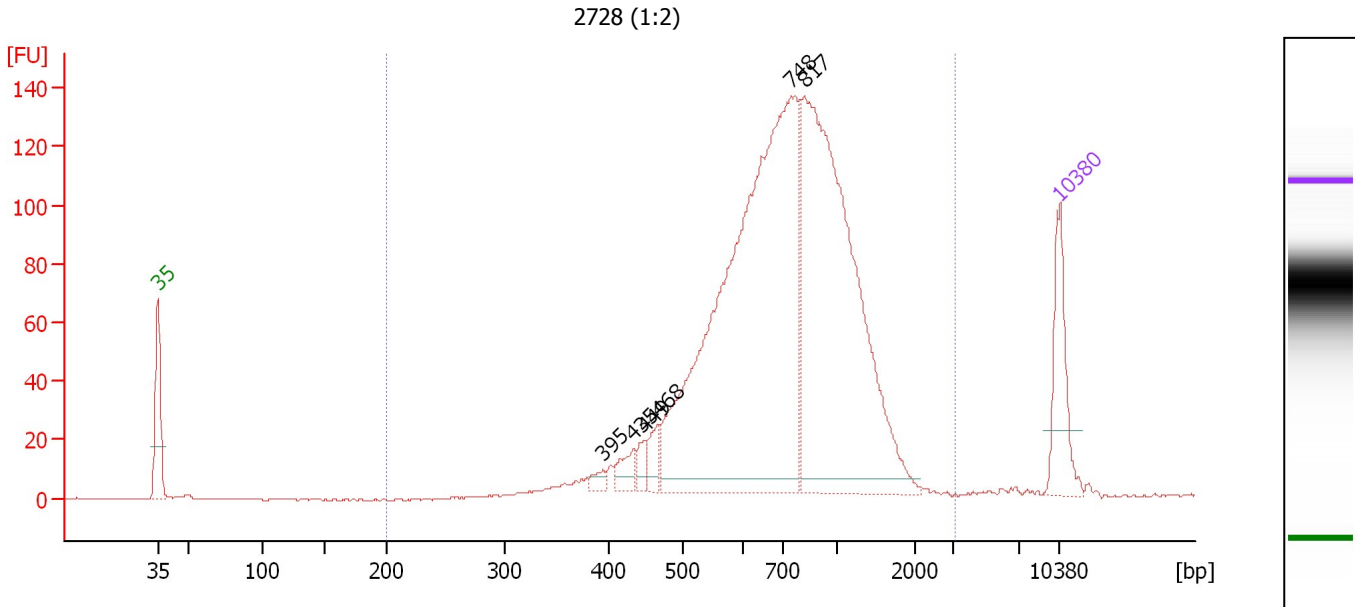
**Region table for sample 5 : 2727**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	2,463	753	2,566.4	5,017.7	2,180.36	98	36.7

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-20\2016-10-20\_006.xad

Created: 10/20/2016 4:20:54 PM  
 Modified: 10/20/2016 5:21:51 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : 2728 (1:2)**

Number of peaks found: 6                      Corr. Area 1: 1,844.3  
 Noise: 0.3

**Peak table for sample 6 : 2728 (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	395	11.84	45.4		77.57
3	435	27.14	94.6		79.96
4	449	18.93	63.9		80.77
5	468	26.26	84.9		81.89
6	748	990.40	2,006.0		92.23
7	817	710.11	1,317.0		93.20
8	10,380	75.00	10.9	Upper Marker	113.00

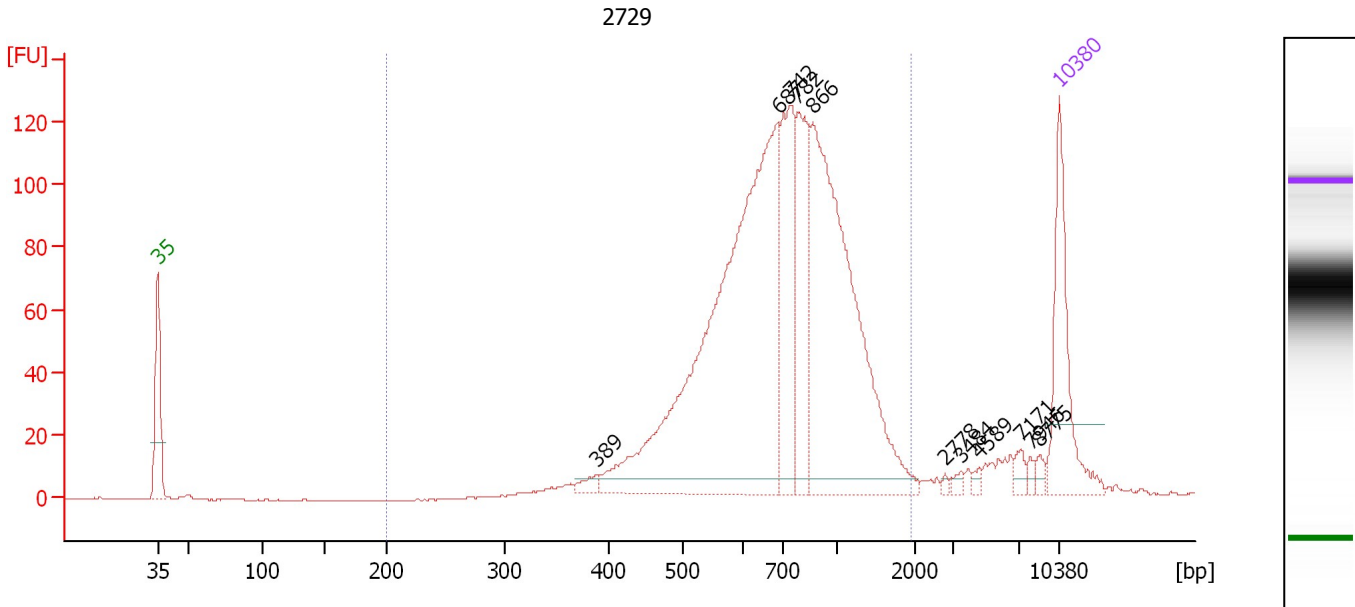
**Region table for sample 6 : 2728 (1:2)**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	3,060	802	1,844.3	4,229.1	1,910.74	98	39.7

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-20\2016-10-20\_006.xad

Created: 10/20/2016 4:20:54 PM  
 Modified: 10/20/2016 5:21:51 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : 2729**

Number of peaks found: 11                      Corr. Area 1: 1,599.3  
 Noise: 0.2

**Peak table for sample 7 : 2729**

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	389	8.95	34.9		77.05
3	687	577.64	1,273.4		91.16
4	742	130.27	266.1		92.14
5	782	105.45	204.3		92.71
6	866	352.30	616.1		93.89
7	2,778	2.05	1.1		104.14
8	3,484	3.73	1.6		105.43
9	4,589	3.17	1.0		106.82
10	7,171	6.97	1.5		110.01
11	7,946	4.10	0.8		110.73
12	8,775	4.50	0.8		111.51
13	10,380	75.00	10.9	Upper Marker	113.00

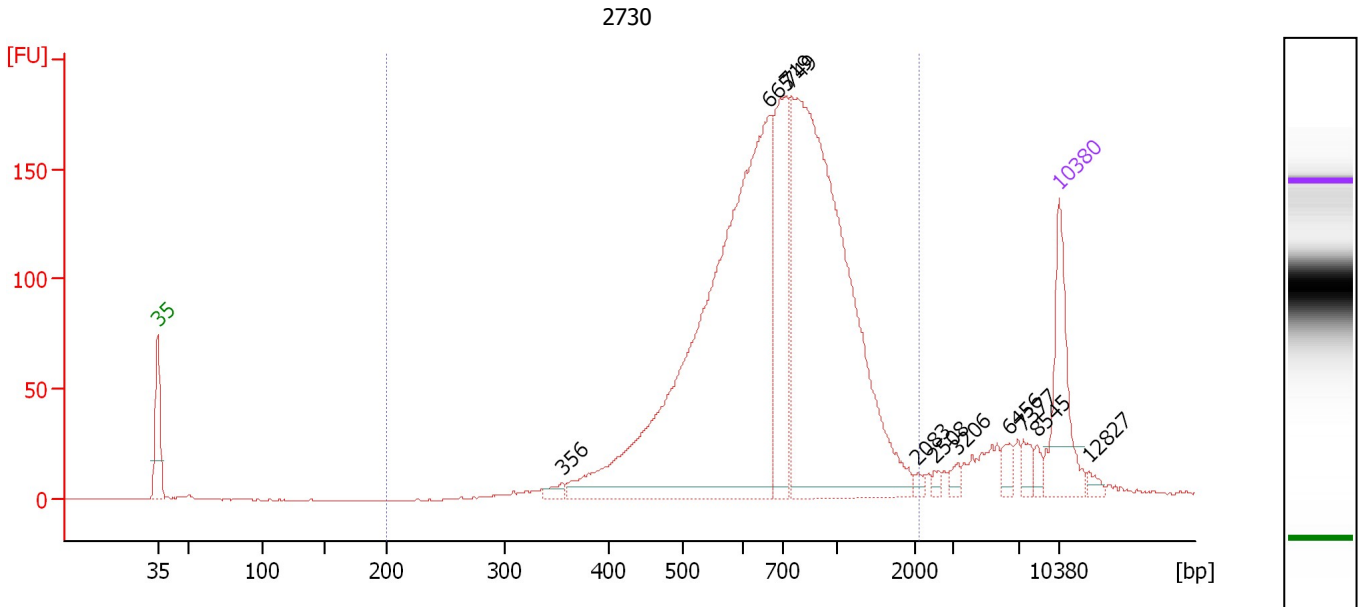
**Region table for sample 7 : 2729**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,943	779	1,599.3	2,669.1	1,202.49	94	35.7

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-20\2016-10-20\_006.xad

Created: 10/20/2016 4:20:54 PM  
 Modified: 10/20/2016 5:21:51 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : 2730**

Number of peaks found: 11                      Corr. Area 1: 2,450.6  
 Noise: 0.3

**Peak table for sample 8 : 2730**

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	356	10.74	45.7		74.43
3	665	803.33	1,829.6		90.48
4	719	167.31	352.5		91.82
5	749	672.20	1,360.4		92.24
6	2,083	4.59	3.3		102.02
7	2,508	4.96	3.0		103.32
8	3,206	6.99	3.3		105.08
9	6,456	11.73	2.8		109.17
10	7,377	11.75	2.4		110.20
11	8,545	6.99	1.2		111.29
12	10,380	75.00	10.9	Upper Marker	113.00
13	12,827	0.00	0.0		115.28

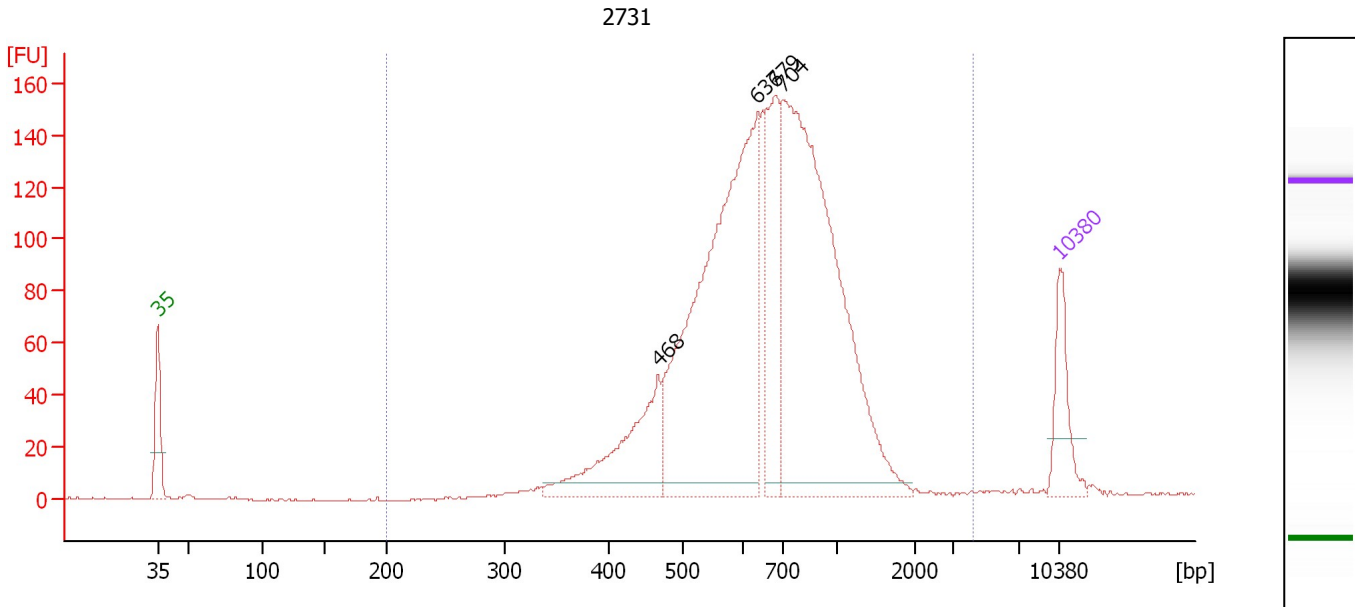
**Region table for sample 8 : 2730**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	2,092	766	2,450.6	3,718.4	1,641.24	93	36.7

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-20\2016-10-20\_006.xad

Created: 10/20/2016 4:20:54 PM  
 Modified: 10/20/2016 5:21:51 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : 2731**

Number of peaks found: 4                      Corr. Area 1: 2,136.2  
 Noise: 0.3

**Peak table for sample 9 : 2731**

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	468	231.37	749.6		81.85
3	637	878.61	2,090.4		89.60
4	679	209.36	467.5		90.89
5	704	928.61	1,998.2		91.61
6	10,380	75.00	10.9	Upper Marker	113.00

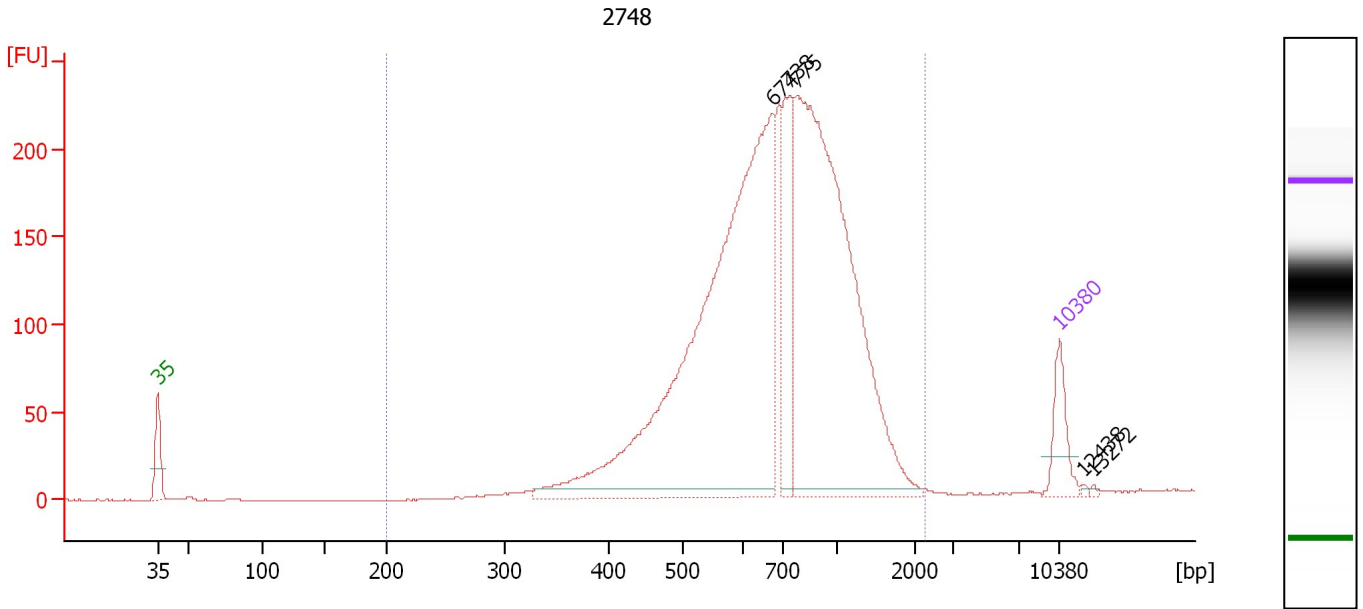
**Region table for sample 9 : 2731**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	4,167	724	2,136.2	5,560.1	2,333.57	99	38.1

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-20\2016-10-20\_006.xad

Created: 10/20/2016 4:20:54 PM  
 Modified: 10/20/2016 5:21:51 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : 2748**

Number of peaks found: 5                      Corr. Area 1: 3,164.0  
 Noise: 0.2

**Peak table for sample 10 : 2748**

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	674	1,706.14	3,837.7		90.74
3	738	268.84	552.2		92.08
4	775	1,381.43	2,702.5		92.60
5	10,380	75.00	10.9	Upper Marker	113.00
6	12,438	0.00	0.0		114.92
7	13,272	0.00	0.0		115.69

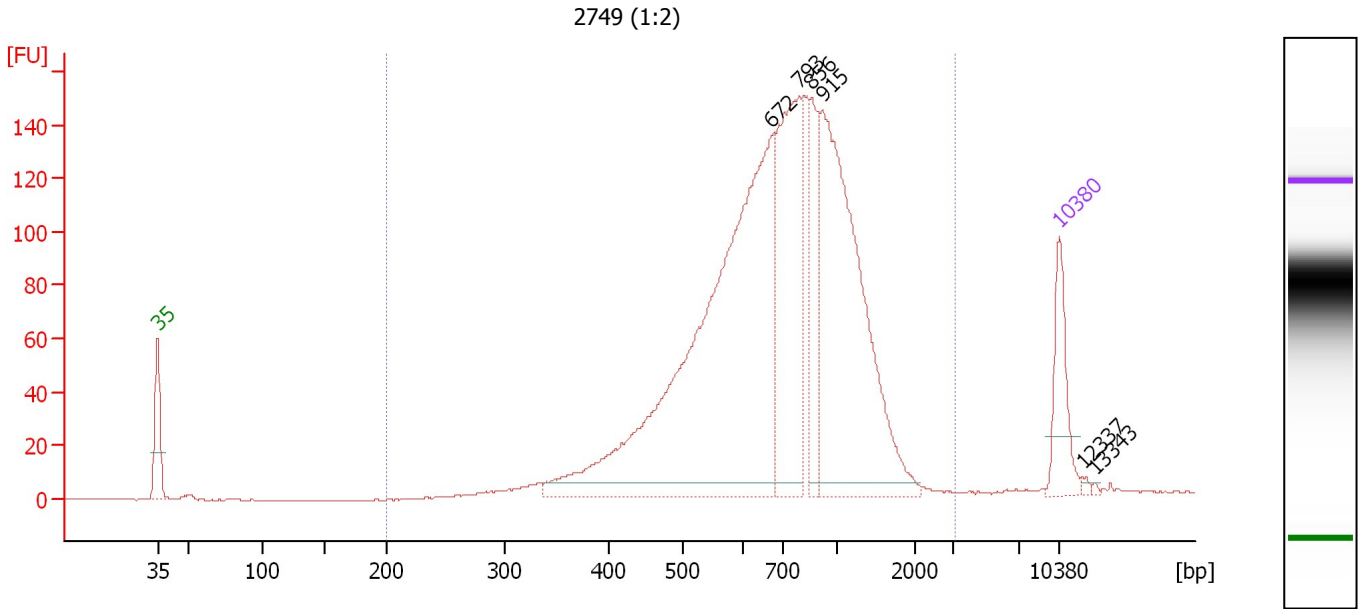
**Region table for sample 10 : 2748**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	2,268	770	3,164.0	7,890.3	3,472.12	98	37.1

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-20\2016-10-20\_006.xad

Created: 10/20/2016 4:20:54 PM  
 Modified: 10/20/2016 5:21:51 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : 2749 (1:2)**

Number of peaks found: 6      Corr. Area 1: 2,123.2  
 Noise: 0.2

**Peak table for sample 11 : 2749 (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	672	1,018.60	2,298.2		90.67
3	793	347.64	664.3		92.86
4	856	105.56	186.9		93.74
5	915	553.91	917.0		94.58
6	10,380	75.00	10.9	Upper Marker	113.00
7	12,337	0.00	0.0		114.82
8	13,343	0.00	0.0		115.76

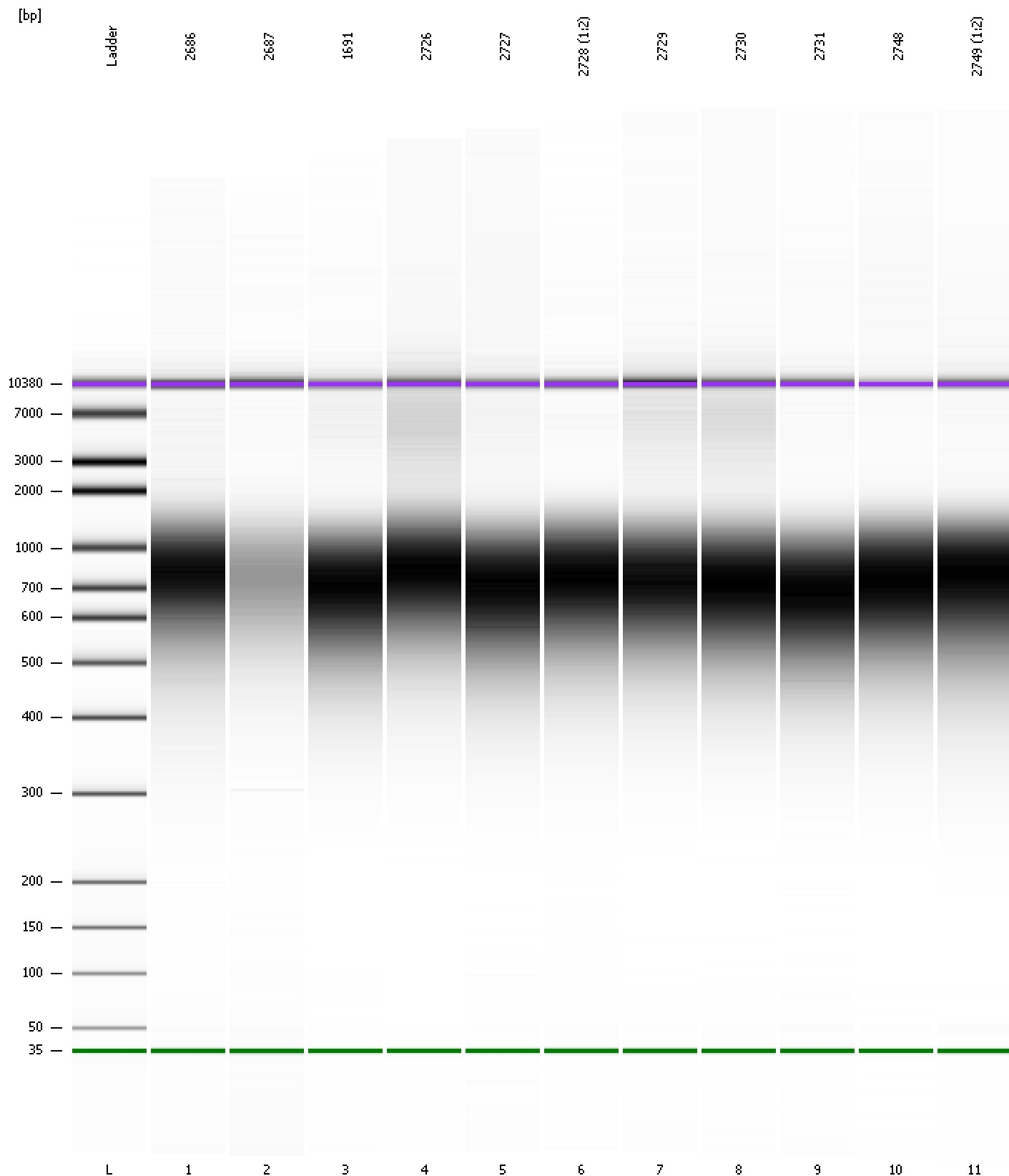
**Region table for sample 11 : 2749 (1:2)**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	3,117	789	2,123.2	5,049.4	2,216.51	98	40.3

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-20\2016-10-20\_006.xad

Created: 10/20/2016 4:20:54 PM  
Modified: 10/20/2016 5:21:51 PM

**Gel Image**





Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-20\2016-10-20\_006.xad

Created: 10/20/2016 4:20:54 PM  
 Modified: 10/20/2016 5:21:51 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		10/20/2016 5:01:21 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\2016-10-20\2016-10-20_006.xad)		Instrument	Run		10/20/2016 4:20:59 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		10/20/2016 4:20:59 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		10/20/2016 4:20:59 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		10/20/2016 4:20:59 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		10/20/2016 4:20:59 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		10/20/2016 4:20:59 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		10/20/2016 4:20:59 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1