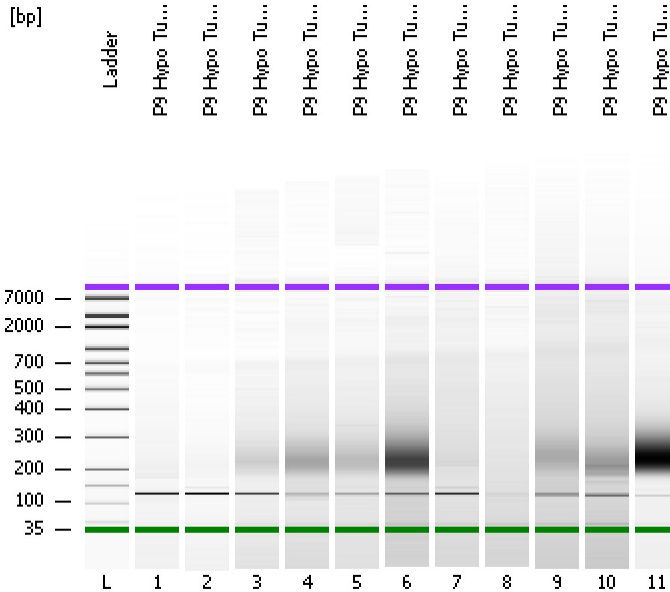


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-09\2016-09-09\_004.xad

Created: 9/9/2016 3:40:44 PM  
Modified: 9/9/2016 4:22:04 PM

Electrophoresis File Run Summary



Instrument Information:

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

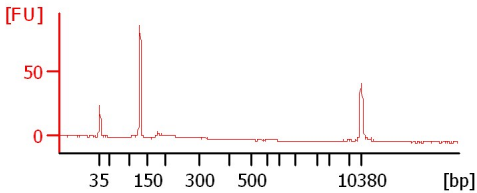
Assay Information:

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

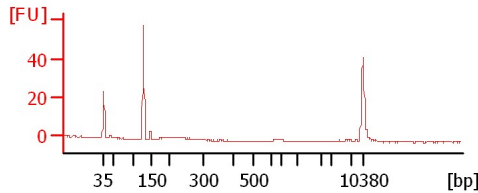
Chip Information:

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

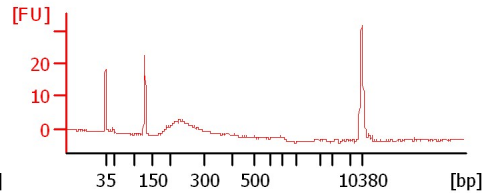
P9 Hypo Tube 1



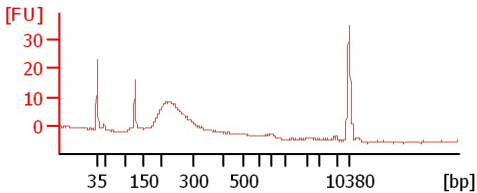
P9 Hypo Tube 2



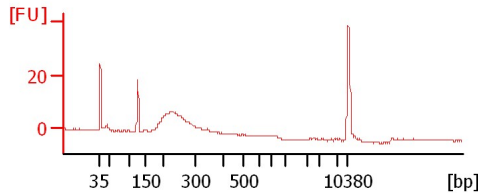
P9 Hypo Tube 3



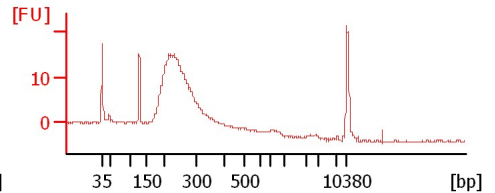
P9 Hypo Tube 4



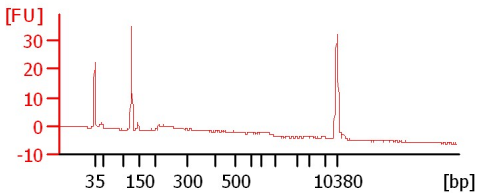
P9 Hypo Tube 5



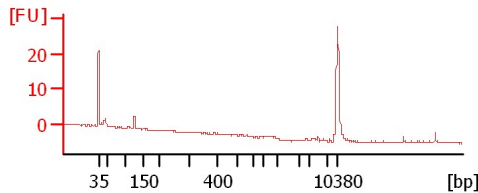
P9 Hypo Tube 6



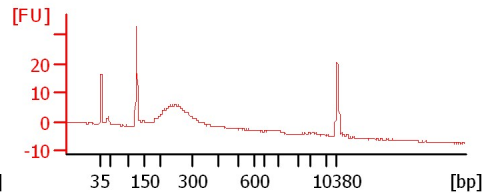
P9 Hypo Tube 7



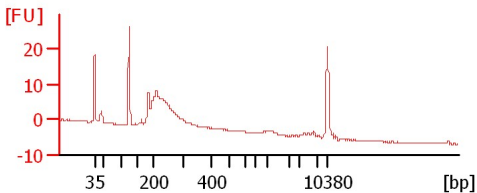
P9 Hypo Tube 8



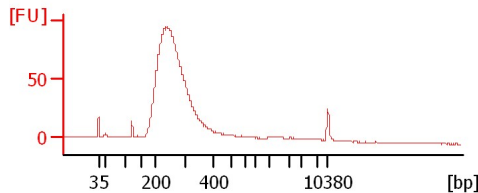
P9 Hypo Tube 9



P9 Hypo Tube 10



P9 Hypo Tube 11



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-09\2016-09-09\_004.xad

Created: 9/9/2016 3:40:44 PM  
Modified: 9/9/2016 4:22:04 PM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
P9 Hypo Tube 1		<input type="checkbox"/>	✓			
P9 Hypo Tube 2		<input type="checkbox"/>	✓			
P9 Hypo Tube 3		<input type="checkbox"/>	✓			
P9 Hypo Tube 4		<input type="checkbox"/>	✓			
P9 Hypo Tube 5		<input type="checkbox"/>	✓			
P9 Hypo Tube 6		<input type="checkbox"/>	✓			
P9 Hypo Tube 7		<input type="checkbox"/>	✓			
P9 Hypo Tube 8		<input type="checkbox"/>	✓			
P9 Hypo Tube 9		<input type="checkbox"/>	✓			
P9 Hypo Tube 10		<input type="checkbox"/>	✓			
P9 Hypo Tube 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\2016-09-09\2016-09-09\_004.xad

Created: 9/9/2016 3:40:44 PM  
Modified: 9/9/2016 4:22:04 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

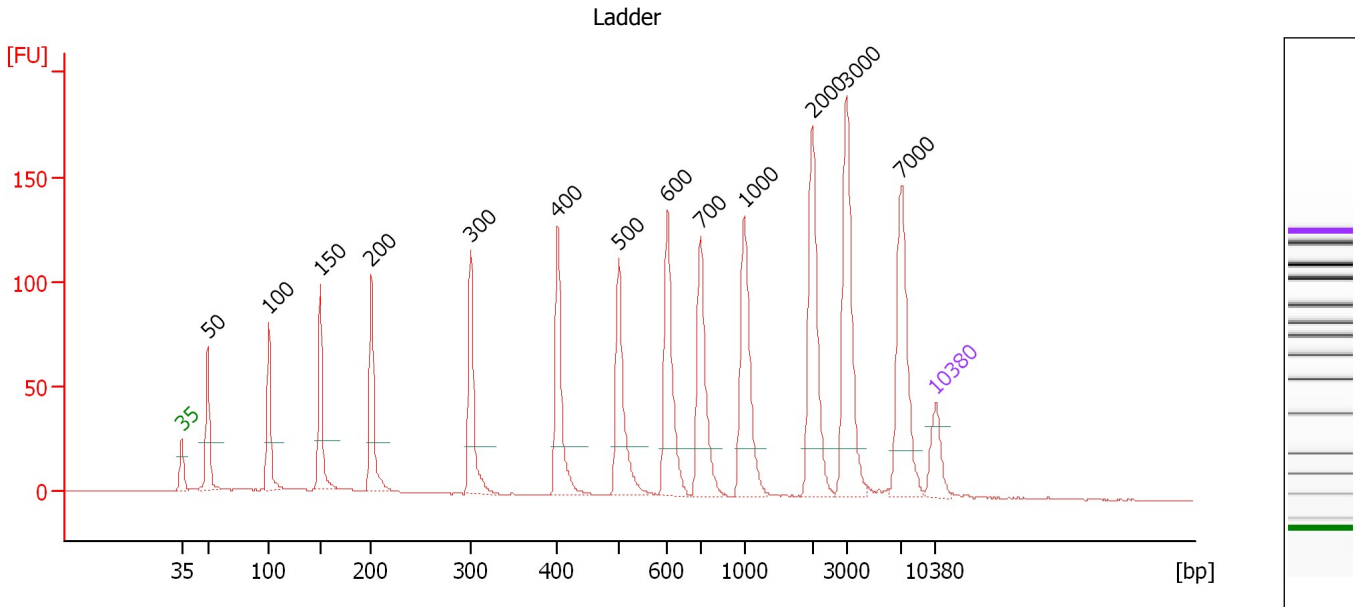
**Ladder**

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\2016-09-09\2016-09-09\_004.xad

Created: 9/9/2016 3:40:44 PM  
 Modified: 9/9/2016 4:22:04 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.2

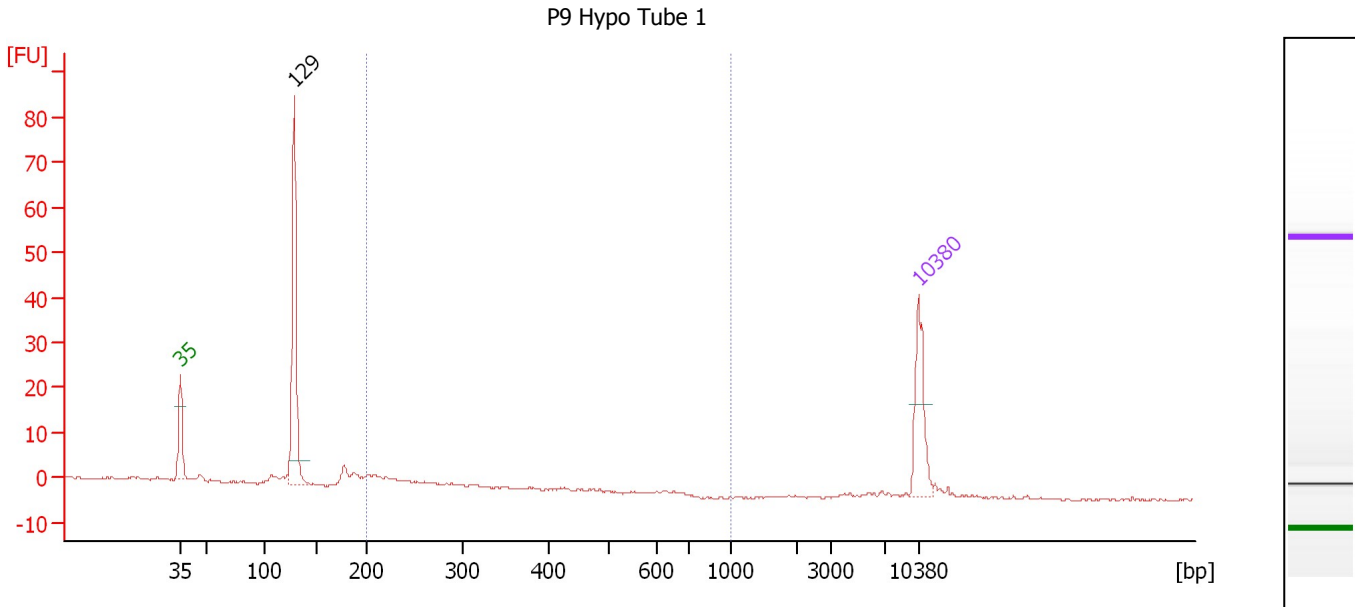
**Peak table for Ladder**

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	45.43
3	100	150.00	2,272.7	Ladder Peak	51.08
4	150	150.00	1,515.2	Ladder Peak	55.88
5	200	150.00	1,136.4	Ladder Peak	60.64
6	300	150.00	757.6	Ladder Peak	69.85
7	400	150.00	568.2	Ladder Peak	77.93
8	500	150.00	454.5	Ladder Peak	83.62
9	600	150.00	378.8	Ladder Peak	88.13
10	700	150.00	324.7	Ladder Peak	91.20
11	1,000	150.00	227.3	Ladder Peak	95.26
12	2,000	150.00	113.6	Ladder Peak	101.56
13	3,000	150.00	75.8	Ladder Peak	104.78
14	7,000	150.00	32.5	Ladder Peak	109.83
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-09\2016-09-09\_004.xad

Created: 9/9/2016 3:40:44 PM  
 Modified: 9/9/2016 4:22:04 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : P9 Hypo Tube 1**

Number of peaks found: 1                      Corr. Area 1: 11.2  
 Noise: 0.2

**Peak table for sample 1 : P9 Hypo Tube 1**

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	129	301.37	3,550.7		53.82
3	10,380	75.00	10.9	Upper Marker	113.00

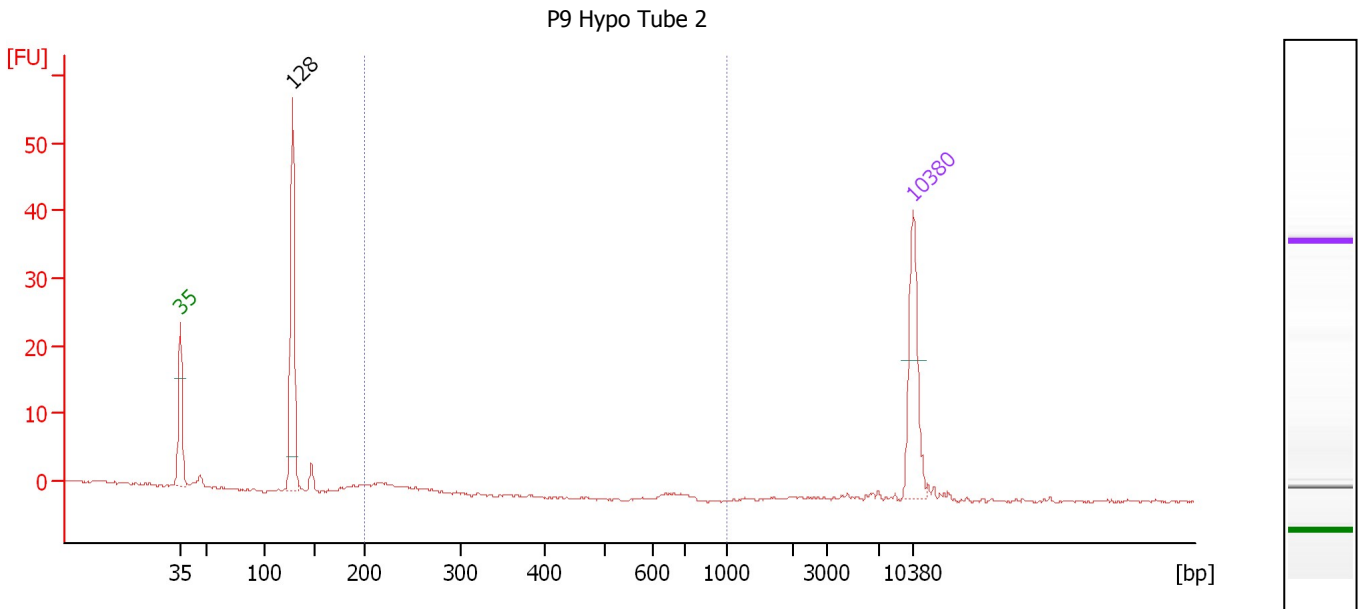
**Region table for sample 1 : P9 Hypo Tube 1**

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	231	11.2	255.8	38.85	11	11.4

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-09\2016-09-09\_004.xad

Created: 9/9/2016 3:40:44 PM  
 Modified: 9/9/2016 4:22:04 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : P9 Hypo Tube 2**

Number of peaks found: 1                      Corr. Area 1: 1.7  
 Noise: 0.2

**Peak table for sample 2 : P9 Hypo Tube 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	128	199.70	2,367.0		53.75
3	10,380	75.00	10.9	Upper Marker	113.00

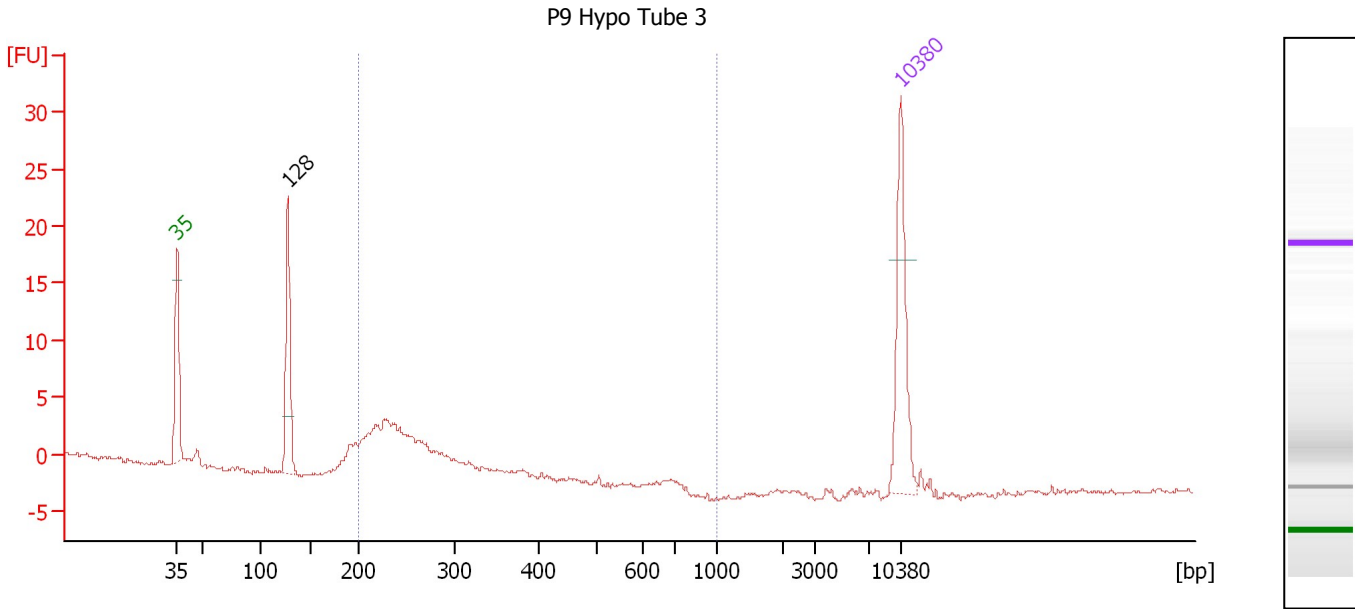
**Region table for sample 2 : P9 Hypo Tube 2**

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	218	1.7	42.5	6.11	3	4.4

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-09\2016-09-09\_004.xad

Created: 9/9/2016 3:40:44 PM  
 Modified: 9/9/2016 4:22:04 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : P9 Hypo Tube 3**

Number of peaks found: 1      Corr. Area 1: 33.6  
 Noise: 0.2

**Peak table for sample 3 : P9 Hypo Tube 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	128	104.57	1,242.3		53.72
3	10,380	75.00	10.9	Upper Marker	113.00

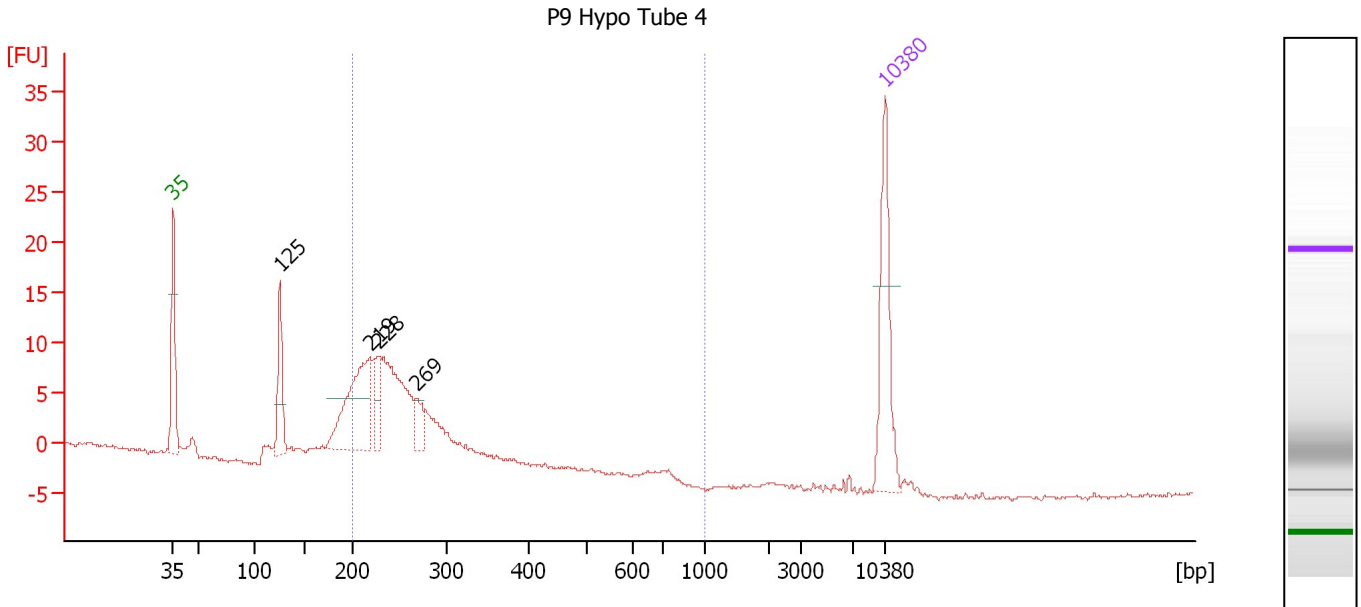
**Region table for sample 3 : P9 Hypo Tube 3**

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	242	33.6	889.4	141.84	59	11.1

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-09\2016-09-09\_004.xad

Created: 9/9/2016 3:40:44 PM  
 Modified: 9/9/2016 4:22:04 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : P9 Hypo Tube 4**

Number of peaks found: 4                      Corr. Area 1: 114.0  
 Noise: 0.2

**Peak table for sample 4 : P9 Hypo Tube 4**

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	125	65.68	795.5		53.49
3	219	133.72	924.5		62.40
4	228	38.17	253.4		63.24
5	269	21.79	122.6		67.01
6	10,380	75.00	10.9	Upper Marker	113.00

**Region table for sample 4 : P9 Hypo Tube 4**

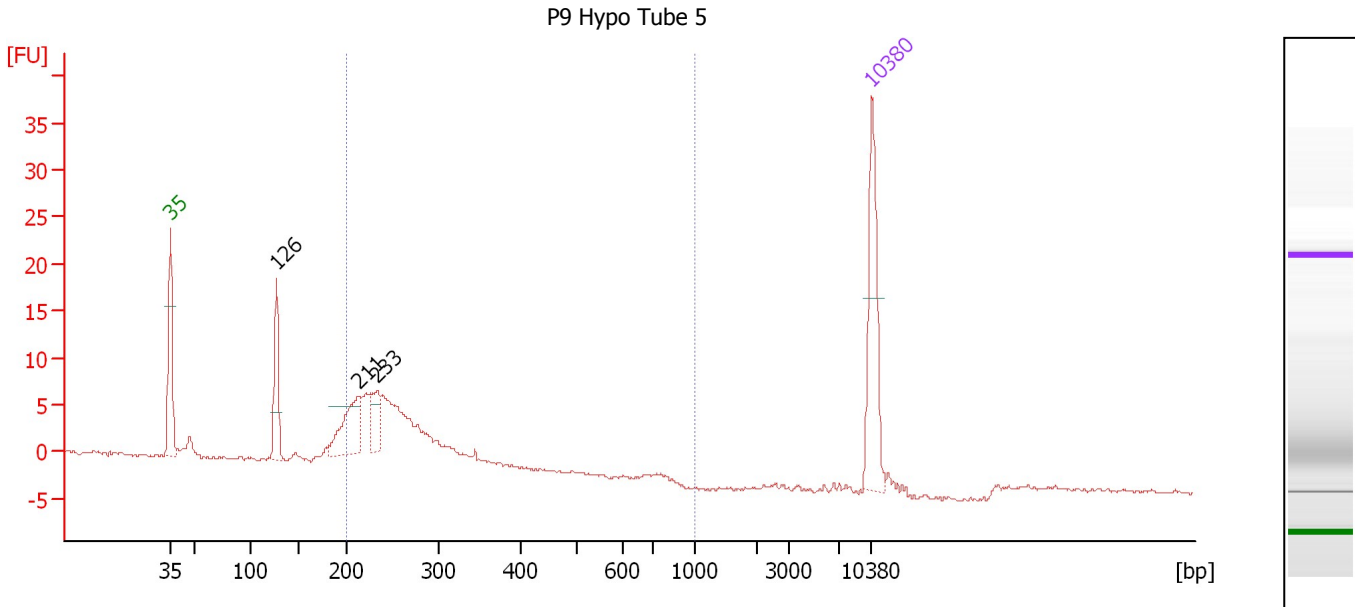
From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	252	114.0	2,484.5	406.01	73	16.0



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-09\2016-09-09\_004.xad

Created: 9/9/2016 3:40:44 PM  
 Modified: 9/9/2016 4:22:04 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : P9 Hypo Tube 5**

Number of peaks found: 3                      Corr. Area 1: 86.4  
 Noise: 0.2

**Peak table for sample 5 : P9 Hypo Tube 5**

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	67.81	814.1		53.59
3	211	69.57	498.7		61.68
4	233	32.96	214.6		63.65
5	10,380	75.00	10.9	Upper Marker	113.00

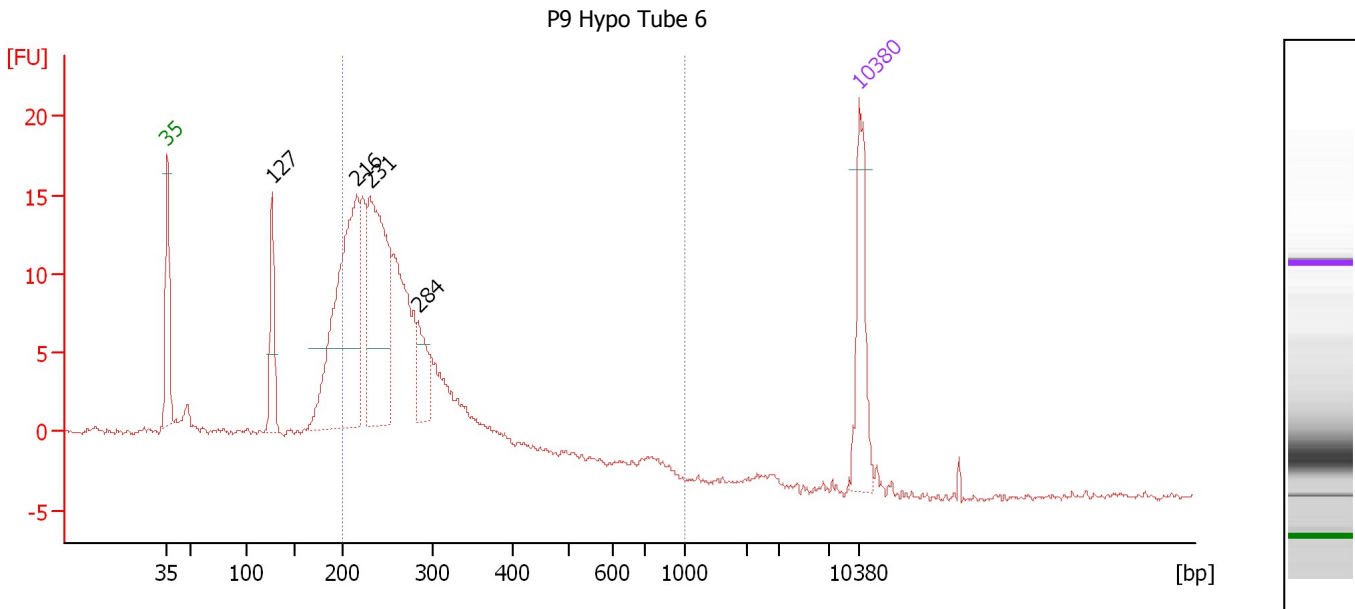
**Region table for sample 5 : P9 Hypo Tube 5**

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	253	86.4	1,853.6	304.70	73	15.4

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-09\2016-09-09\_004.xad

Created: 9/9/2016 3:40:44 PM  
 Modified: 9/9/2016 4:22:04 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : P9 Hypo Tube 6**

Number of peaks found: 4                      Corr. Area 1: 207.8  
 Noise: 0.2

**Peak table for sample 6 : P9 Hypo Tube 6**

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	127	88.09	1,054.9		53.62
3	216	352.06	2,465.3		62.14
4	231	268.92	1,763.8		63.49
5	284	48.97	261.0		68.40
6	10,380	75.00	10.9	Upper Marker	113.00

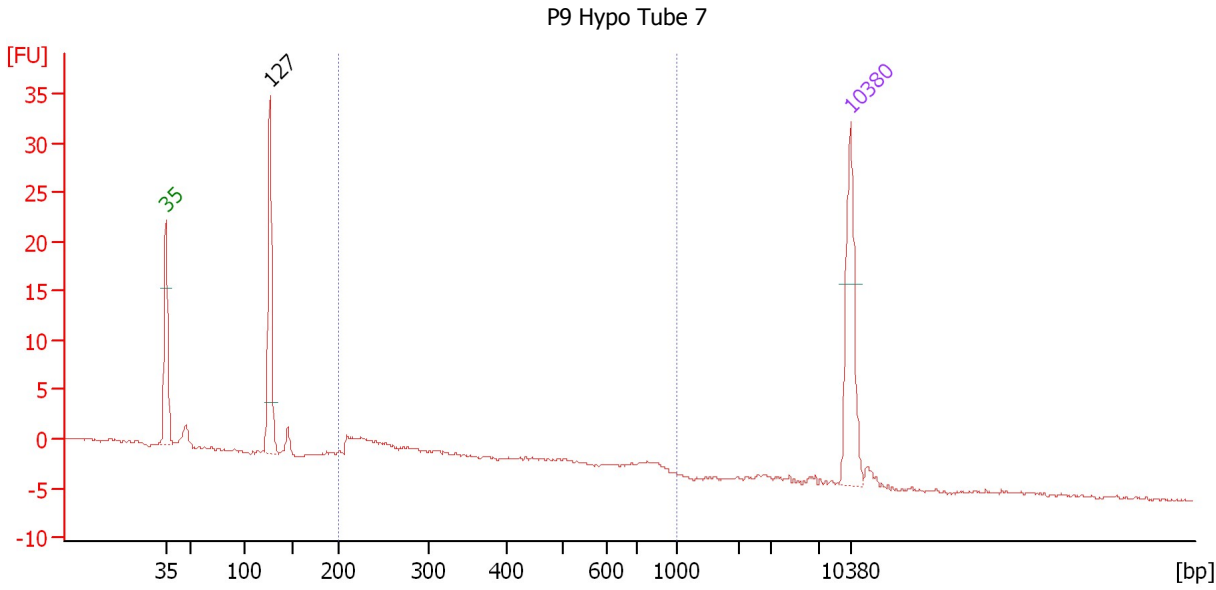
**Region table for sample 6 : P9 Hypo Tube 6**

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	270	207.8	6,593.3	1,115.30	74	27.0

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-09\2016-09-09\_004.xad

Created: 9/9/2016 3:40:44 PM  
 Modified: 9/9/2016 4:22:04 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : P9 Hypo Tube 7**

Number of peaks found: 1                      Corr. Area 1: 28.2  
 Noise: 0.2

**Peak table for sample 7 : P9 Hypo Tube 7**

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	127	138.37	1,657.3		53.62
3	10,380	75.00	10.9	Upper Marker	113.00

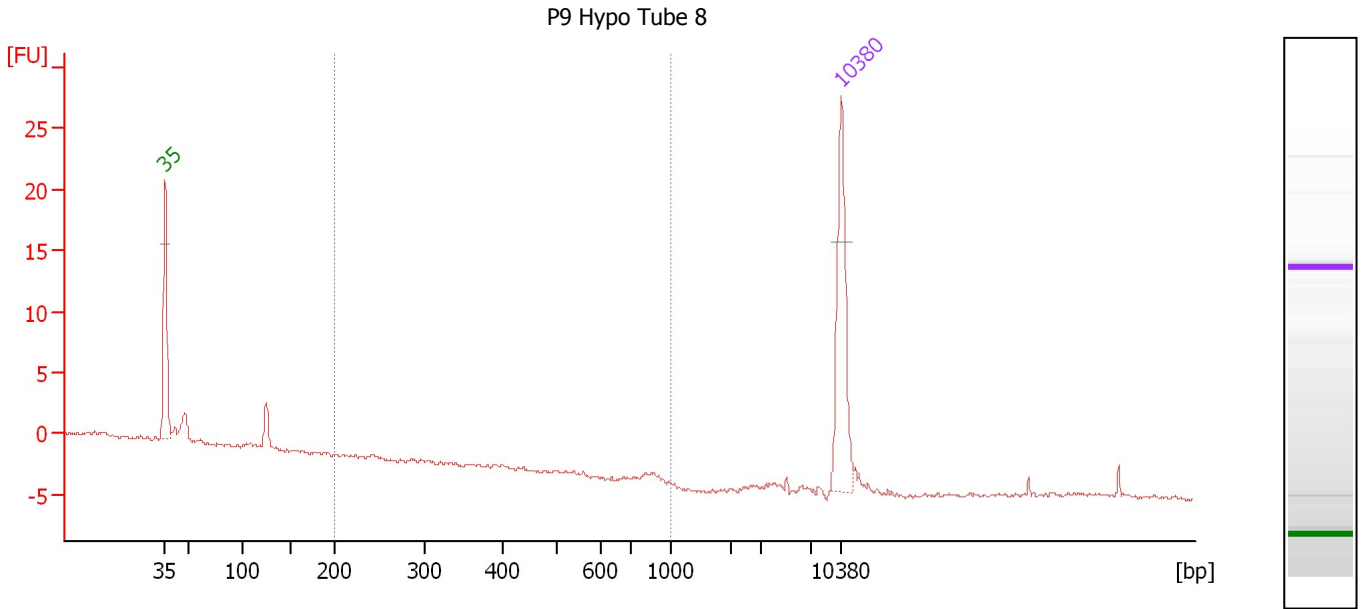
**Region table for sample 7 : P9 Hypo Tube 7**

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	389	28.2	504.2	101.77	45	47.1

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-09\2016-09-09\_004.xad

Created: 9/9/2016 3:40:44 PM  
 Modified: 9/9/2016 4:22:04 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : P9 Hypo Tube 8**

Number of peaks found: 0                      Corr. Area 1: 0.0  
 Noise: 0.2

**Peak table for sample 8 : P9 Hypo Tube 8**

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	10,380	75.00	10.9	Upper Marker	113.00

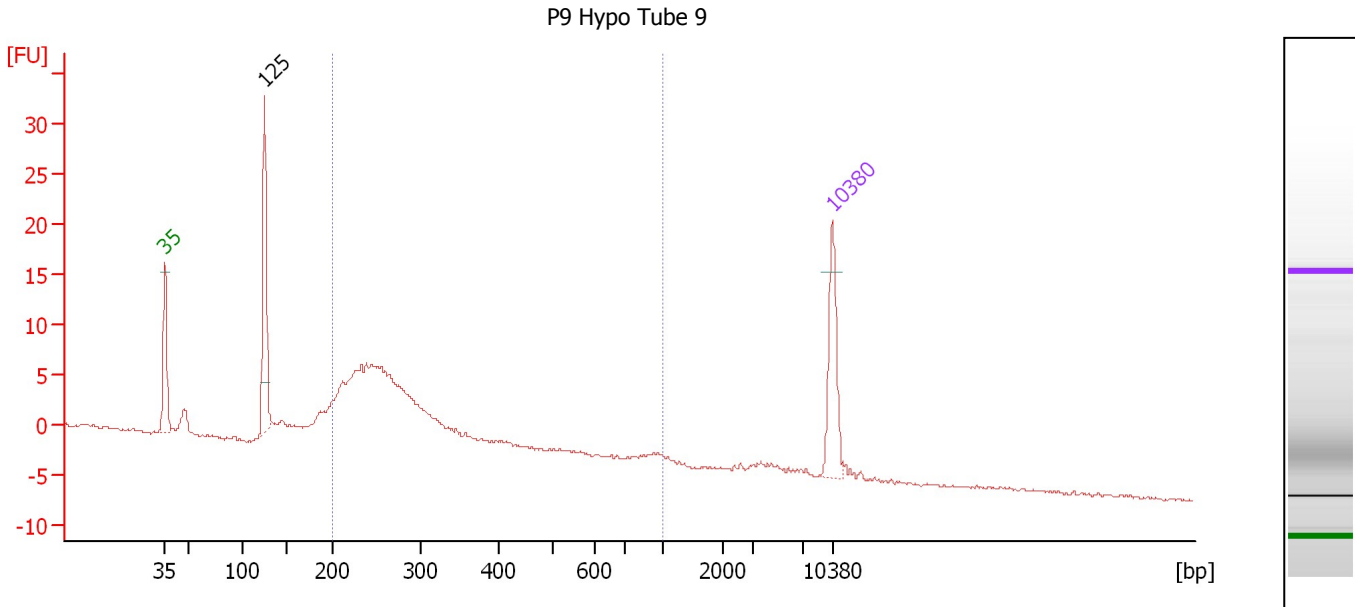
**Region table for sample 8 : P9 Hypo Tube 8**

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	0	0.0	0.0	0.00	0	0.0

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-09\2016-09-09\_004.xad

Created: 9/9/2016 3:40:44 PM  
 Modified: 9/9/2016 4:22:04 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : P9 Hypo Tube 9**

Number of peaks found: 1                      Corr. Area 1: 124.8  
 Noise: 0.1

**Peak table for sample 9 : P9 Hypo Tube 9**

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	125	192.34	2,324.9		53.51
3	10,380	75.00	10.9	Upper Marker	113.00

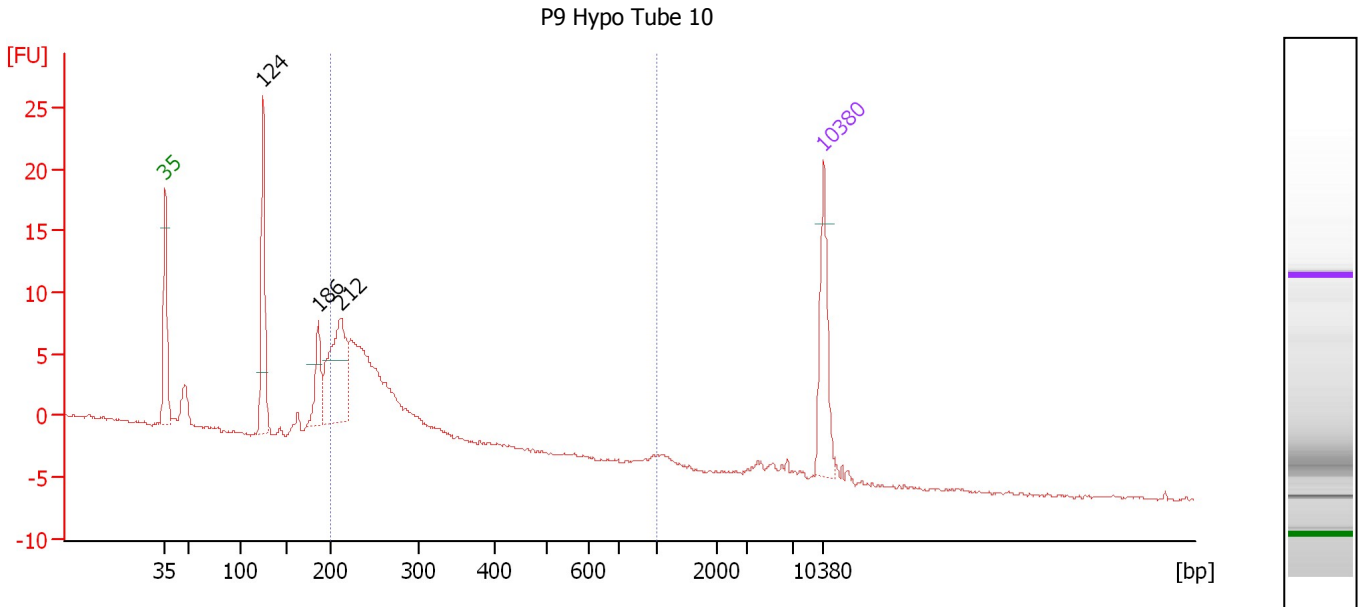
**Region table for sample 9 : P9 Hypo Tube 9**

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	317	124.8	3,940.6	716.60	67	44.5

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-09\2016-09-09\_004.xad

Created: 9/9/2016 3:40:44 PM  
 Modified: 9/9/2016 4:22:04 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : P9 Hypo Tube 10**

Number of peaks found: 3                                  Corr. Area 1: 82.4  
 Noise: 0.1

**Peak table for sample 10 : P9 Hypo Tube 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	124	166.74	2,029.3		53.43
3	186	62.68	511.6		59.27
4	212	173.16	1,239.9		61.70
5	10,380	75.00	10.9	Upper Marker	113.00

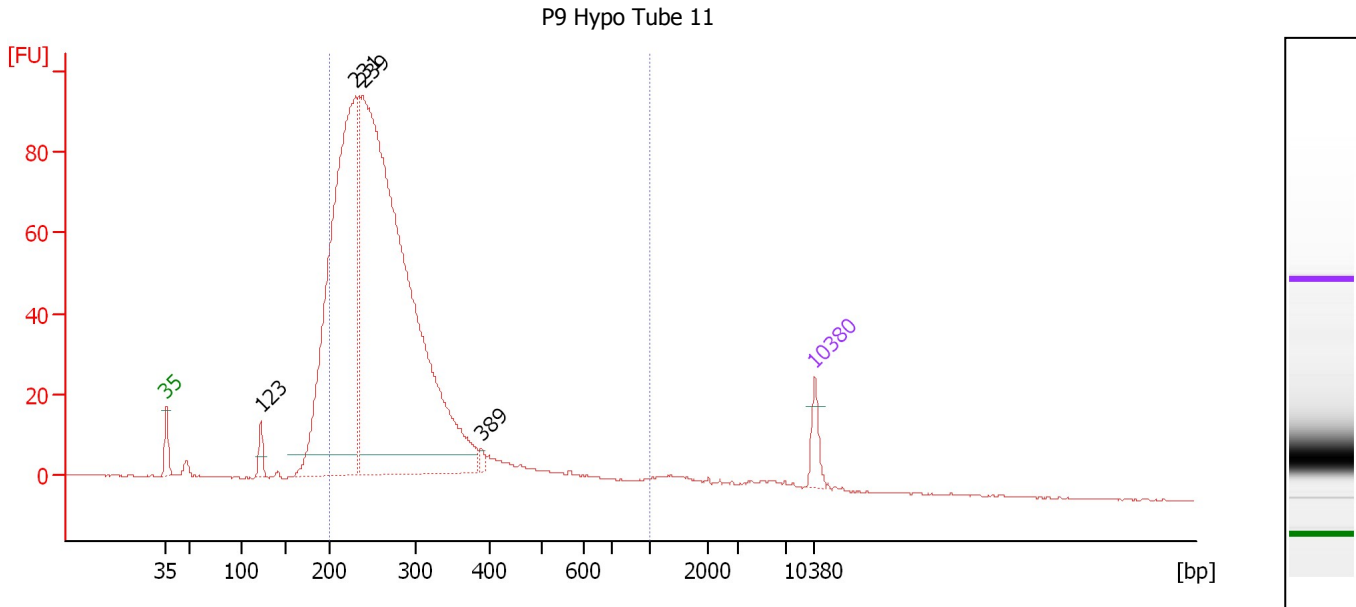
**Region table for sample 10 : P9 Hypo Tube 10**

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	250	82.4	3,112.7	501.35	63	22.8

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-09\2016-09-09\_004.xad

Created: 9/9/2016 3:40:44 PM  
 Modified: 9/9/2016 4:22:04 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : P9 Hypo Tube 11**

Number of peaks found: 4                      Corr. Area 1: 1,289.2  
 Noise: 0.1

**Peak table for sample 11 : P9 Hypo Tube 11**

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	123	83.13	1,027.4		53.25
3	231	2,798.37	18,354.2		63.49
4	239	4,739.55	30,030.3		64.24
5	389	23.25	90.6		77.02
6	10,380	75.00	10.9	Upper Marker	113.00

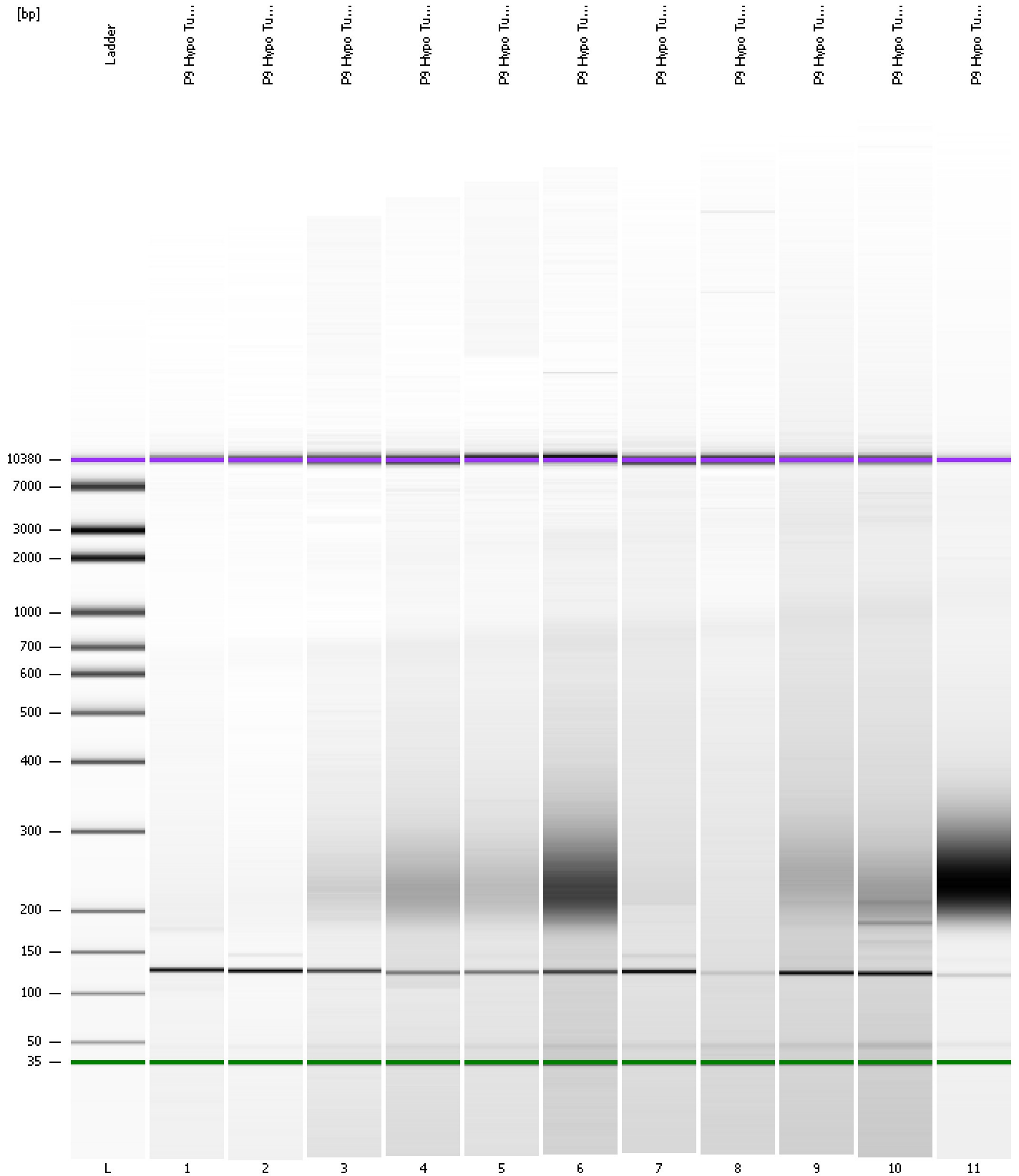
**Region table for sample 11 : P9 Hypo Tube 11**

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	280	1,289.2	43,092.7	7,449.43	88	31.9

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-09\2016-09-09\_004.xad

Created: 9/9/2016 3:40:44 PM  
Modified: 9/9/2016 4:22:04 PM

**Gel Image**





Assay Class: High Sensitivity DNA Assay Created: 9/9/2016 3:40:44 PM  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-09\2016-09-09\_004.xad Modified: 9/9/2016 4:22:04 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		9/9/2016 4:22:01 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\2016-09-09\2016-09-09_004.xad)		Instrument	Run		9/9/2016 3:40:49 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		9/9/2016 3:40:49 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		9/9/2016 3:40:49 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		9/9/2016 3:40:49 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		9/9/2016 3:40:49 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		9/9/2016 3:40:49 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		9/9/2016 3:40:49 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1