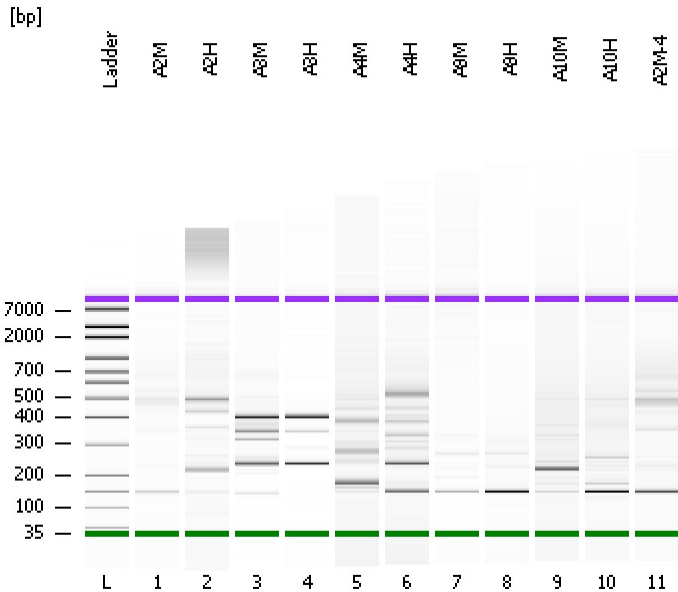


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2019-07-05\2019-07-05\_002.xad

Created: 7/5/2019 11:52:07 AM  
Modified: 7/5/2019 12:30:00 PM

**Electrophoresis File Run Summary**



Instrument Information:

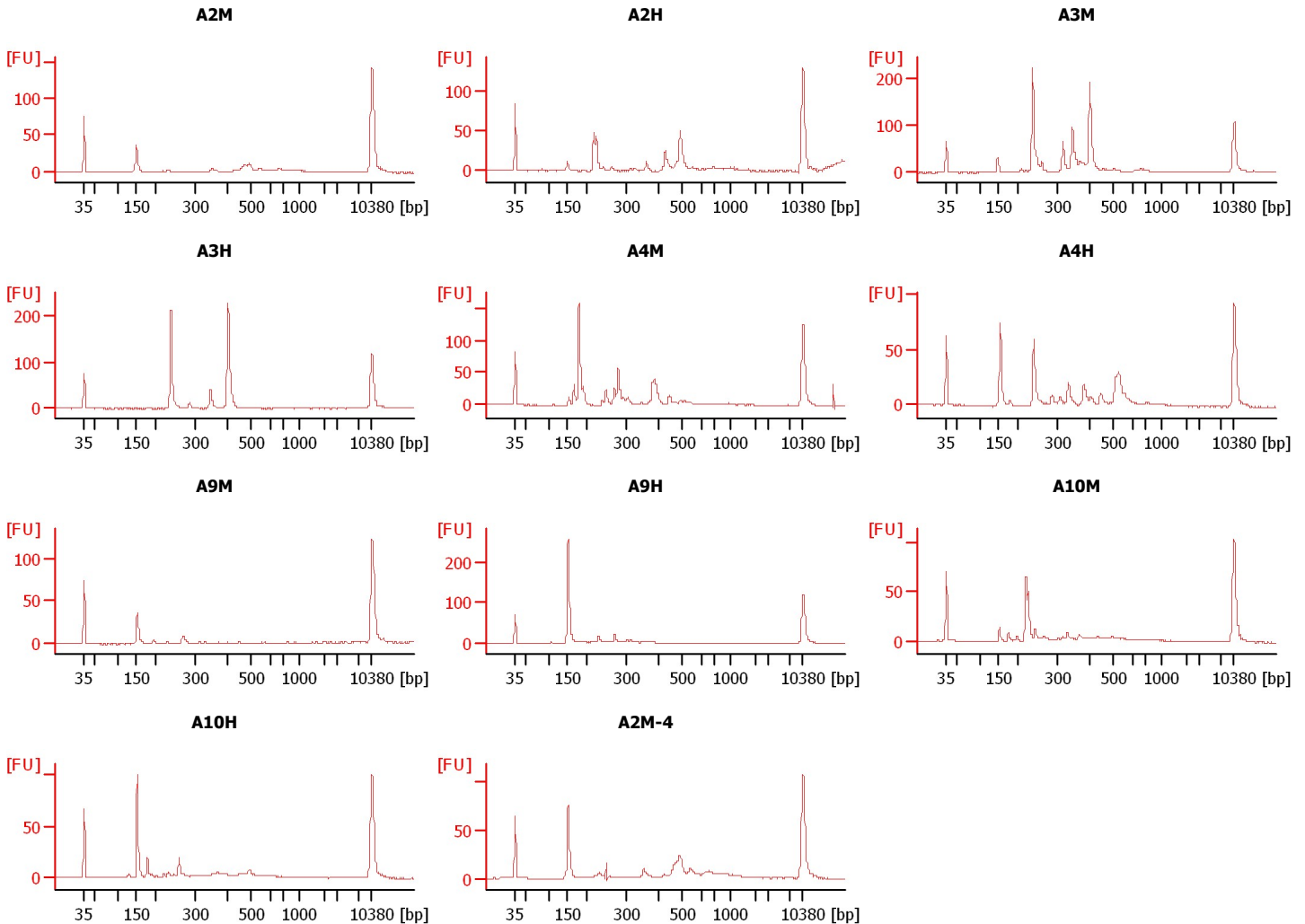
Instrument Name: DE34903152      Firmware: C.01.069  
Serial#: DE34903152      Type: G2938C

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\2019-07-05\2019-07-05\_002.xad

Created: 7/5/2019 11:52:07 AM  
 Modified: 7/5/2019 12:30:00 PM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
A2M		<input type="checkbox"/>	✓			
A2H		<input type="checkbox"/>	✓			
A3M		<input type="checkbox"/>	✓			
A3H		<input type="checkbox"/>	✓			
A4M		<input type="checkbox"/>	✓			
A4H		<input type="checkbox"/>	✓			
A9M		<input type="checkbox"/>	✓			
A9H		<input type="checkbox"/>	✓			
A10M		<input type="checkbox"/>	✓			
A10H		<input type="checkbox"/>	✓			
A2M-4		<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\2019-07-05\2019-07-05\_002.xad

Created: 7/5/2019 11:52:07 AM  
Modified: 7/5/2019 12:30:00 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

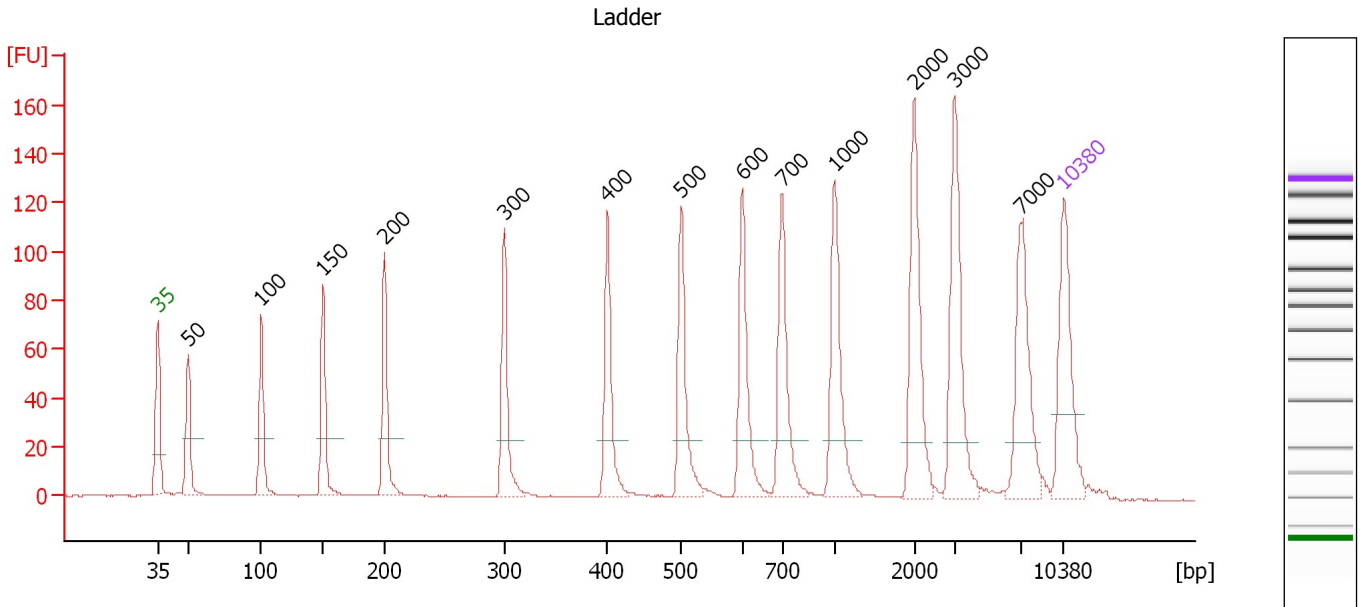
**Ladder**

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\2019-07-05\2019-07-05\_002.xad

Created: 7/5/2019 11:52:07 AM  
 Modified: 7/5/2019 12:30:00 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.2

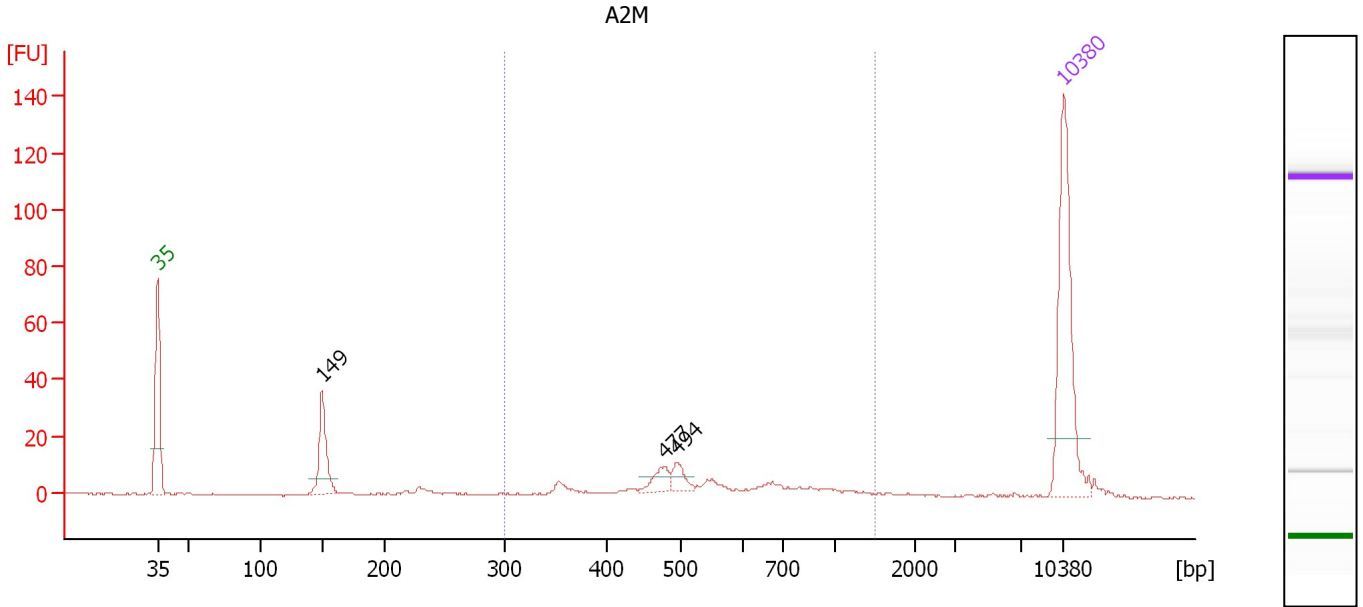
**Peak table for Ladder**

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	51.01
4	150	150.00	1,515.2	Ladder Peak	55.80
5	200	150.00	1,136.4	Ladder Peak	60.55
6	300	150.00	757.6	Ladder Peak	69.80
7	400	150.00	568.2	Ladder Peak	77.76
8	500	150.00	454.5	Ladder Peak	83.45
9	600	150.00	378.8	Ladder Peak	88.15
10	700	150.00	324.7	Ladder Peak	91.23
11	1,000	150.00	227.3	Ladder Peak	95.26
12	2,000	150.00	113.6	Ladder Peak	101.43
13	3,000	150.00	75.8	Ladder Peak	104.56
14	7,000	150.00	32.5	Ladder Peak	109.63
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-07-05\2019-07-05\_002.xad

Created: 7/5/2019 11:52:07 AM  
 Modified: 7/5/2019 12:30:00 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : A2M**

Number of peaks found: 3                      Corr. Area 1: 94.1  
 Noise: 0.3

**Peak table for sample 1 : A2M**

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	149	45.12	458.9		55.71
3	477	11.72	37.2		82.16
4	494	10.51	32.2		83.12
5	10,380	75.00	10.9	Upper Marker	113.00

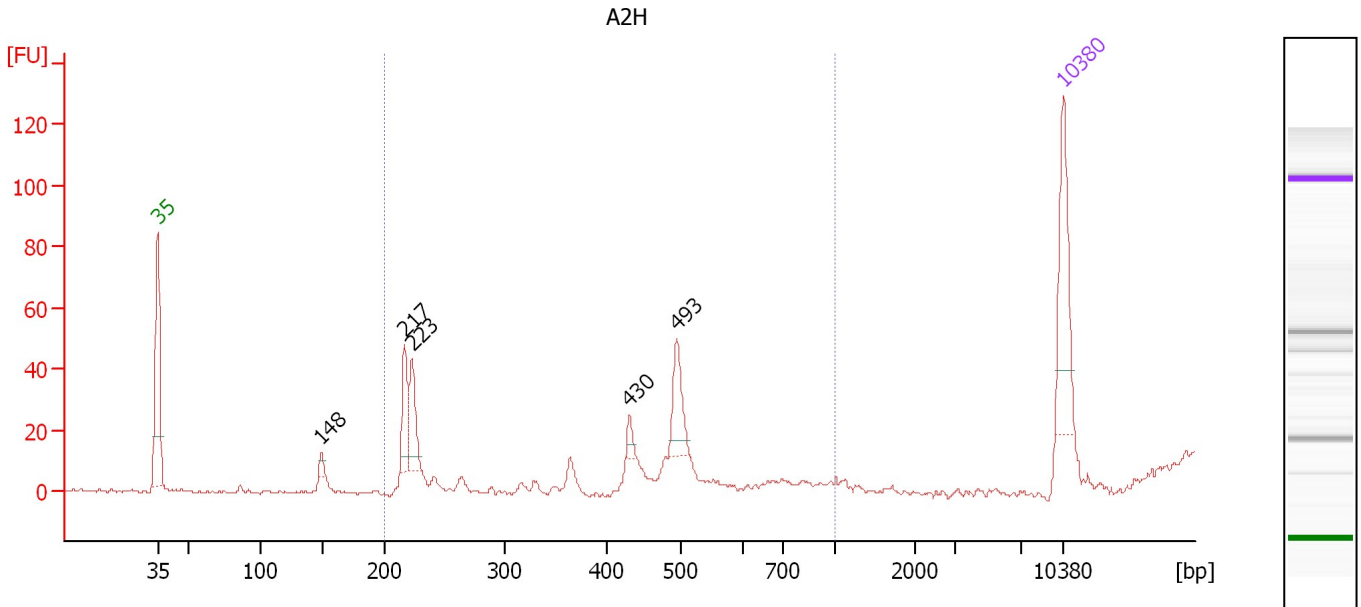
**Region table for sample 1 : A2M**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
300	1,508	588	67.85	94.1	197.7	60	35.7

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-07-05\2019-07-05\_002.xad

Created: 7/5/2019 11:52:07 AM  
 Modified: 7/5/2019 12:30:00 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : A2H**

Number of peaks found: 5                      Corr. Area 1: 113.0  
 Noise: 0.5

**Peak table for sample 2 : A2H**

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	148	8.62	88.1		55.64
3	217	56.36	394.1		62.09
4	223	52.85	359.3		62.66
5	430	10.63	37.5		79.46
6	493	49.63	152.4		83.08
7	10,380	75.00	10.9	Upper Marker	113.00

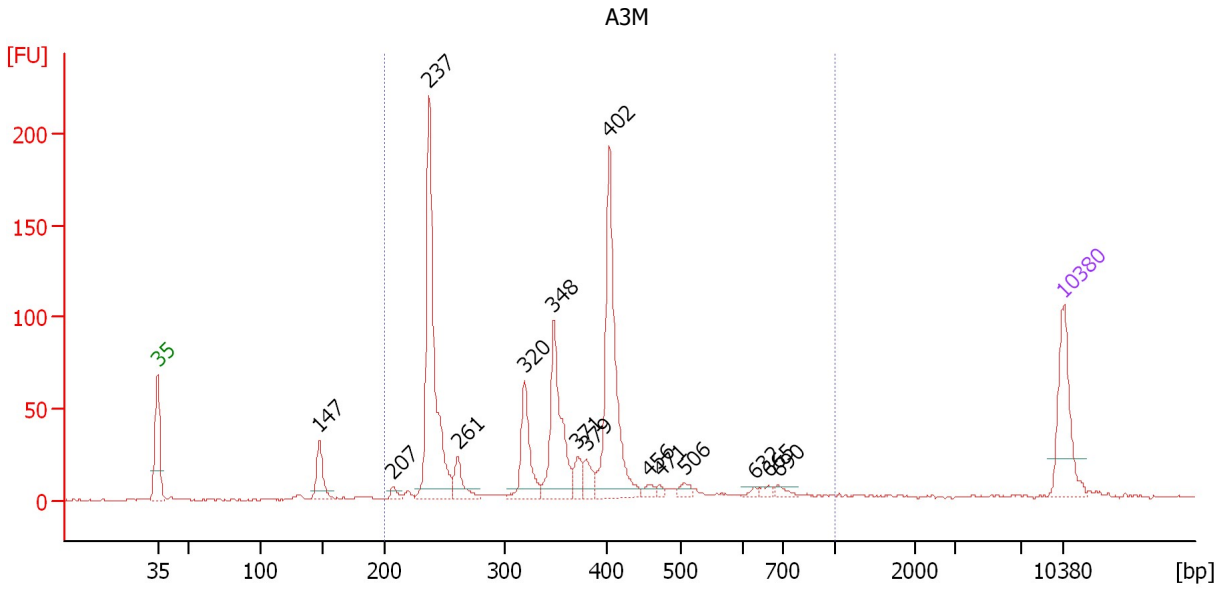
**Region table for sample 2 : A2H**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
200	1,000	348	171.04	113.0	943.2	84	38.2

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-07-05\2019-07-05\_002.xad

Created: 7/5/2019 11:52:07 AM  
 Modified: 7/5/2019 12:30:00 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : A3M**

Number of peaks found: 15                      Corr. Area 1: 848.0  
 Noise: 0.6

**Peak table for sample 3 : A3M**

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	147	51.92	537.0		55.47
3	207	9.73	71.2		61.22
4	237	337.89	2,157.6		64.00
5	261	36.76	213.4		66.19
6	320	84.37	400.1		71.35
7	348	149.63	652.1		73.59
8	371	23.86	97.5		75.44
9	379	23.65	94.4		76.12
10	402	242.22	912.9		77.88
11	456	9.03	30.0		80.95
12	471	5.34	17.2		81.82
13	506	10.69	32.0		83.72
14	632	4.59	11.0		89.13
15	665	6.79	15.5		90.15
16	690	7.32	16.1		90.93
17	10,380	75.00	10.9	Upper Marker	113.00

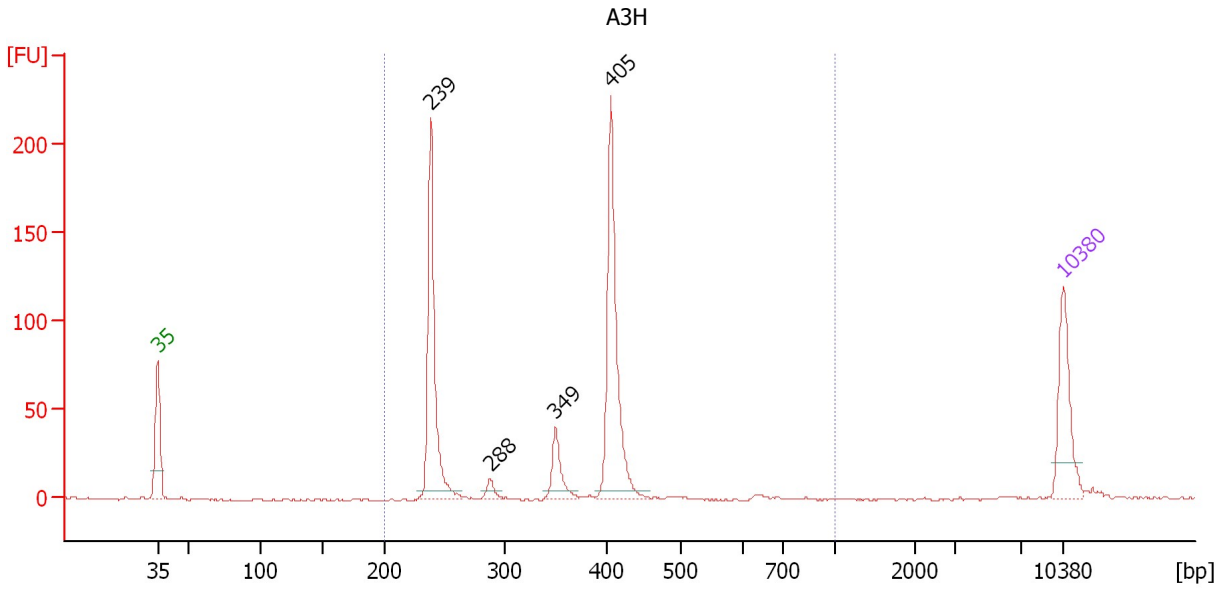
**Region table for sample 3 : A3M**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
200	1,000	353	995.08	848.0	4,813.5	93	30.3

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-07-05\2019-07-05\_002.xad

Created: 7/5/2019 11:52:07 AM  
 Modified: 7/5/2019 12:30:00 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : A3H**

Number of peaks found: 4                      Corr. Area 1: 511.2  
 Noise: 0.6

**Peak table for sample 4 : A3H**

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	239	257.07	1,632.6		64.12
3	288	13.58	71.5		68.67
4	349	46.62	202.2		73.72
5	405	244.91	917.1		78.03
6	10,380	75.00	10.9	Upper Marker	113.00

**Region table for sample 4 : A3H**

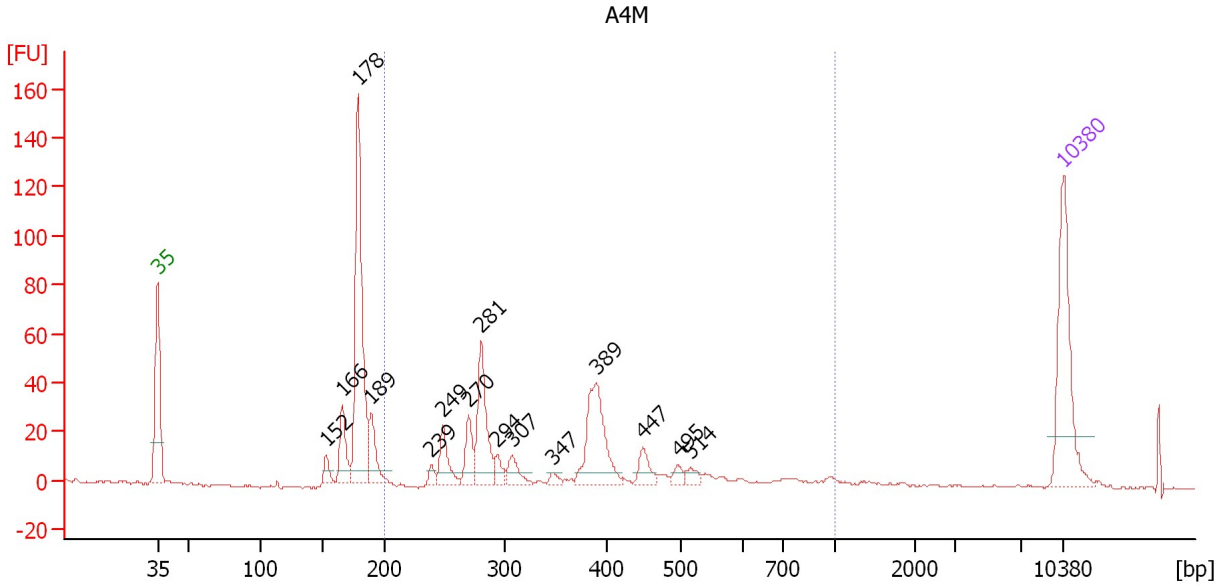
From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
200	1,000	341	548.51	511.2	2,719.1	96	24.3



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-07-05\2019-07-05\_002.xad

Created: 7/5/2019 11:52:07 AM  
 Modified: 7/5/2019 12:30:00 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : A4M**

Number of peaks found: 15                      Corr. Area 1: 296.9  
 Noise: 0.4

**Peak table for sample 5 : A4M**

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	152	11.92	118.8		56.00
3	166	38.22	349.6		57.29
4	178	194.36	1,653.0		58.48
5	189	35.33	283.2		59.51
6	239	6.73	42.7		64.15
7	249	28.54	173.7		65.08
8	270	27.28	153.0		67.04
9	281	68.37	368.9		68.02
10	294	11.38	58.6		69.26
11	307	16.40	80.8		70.39
12	347	5.39	23.5		73.54
13	389	79.49	309.6		76.89
14	447	16.45	55.7		80.45
15	495	7.47	22.9		83.18
16	514	7.58	22.3		84.11
17	10,380	75.00	10.9	Upper Marker	113.00

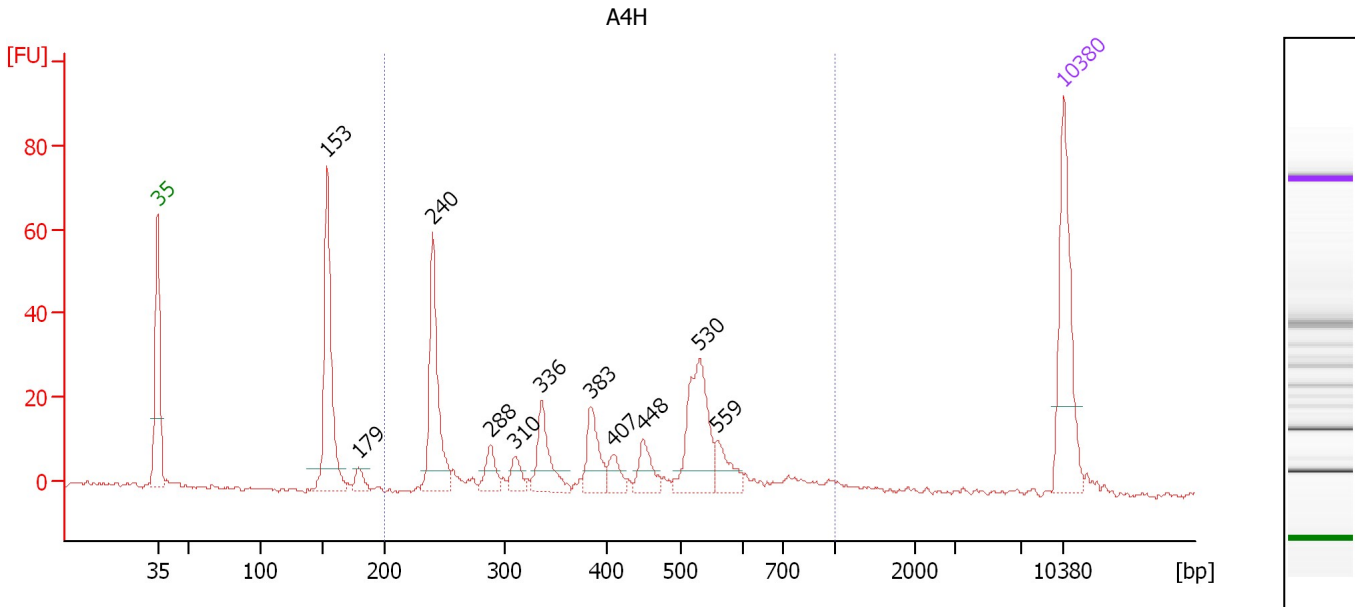
**Region table for sample 5 : A4M**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
200	1,000	375	282.49	296.9	1,287.0	55	33.8

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-07-05\2019-07-05\_002.xad

Created: 7/5/2019 11:52:07 AM  
 Modified: 7/5/2019 12:30:00 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : A4H**

Number of peaks found: 11                      Corr. Area 1: 291.6  
 Noise: 0.5

**Peak table for sample 6 : A4H**

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	153	153.59	1,520.4		56.10
3	179	11.65	98.7		58.54
4	240	111.69	705.4		64.24
5	288	21.39	112.4		68.71
6	310	15.90	77.6		70.63
7	336	44.43	200.4		72.65
8	383	35.37	139.8		76.43
9	407	15.04	55.9		78.19
10	448	23.44	79.3		80.48
11	530	82.93	237.3		84.84
12	559	22.53	61.1		86.22
13	10,380	75.00	10.9	Upper Marker	113.00

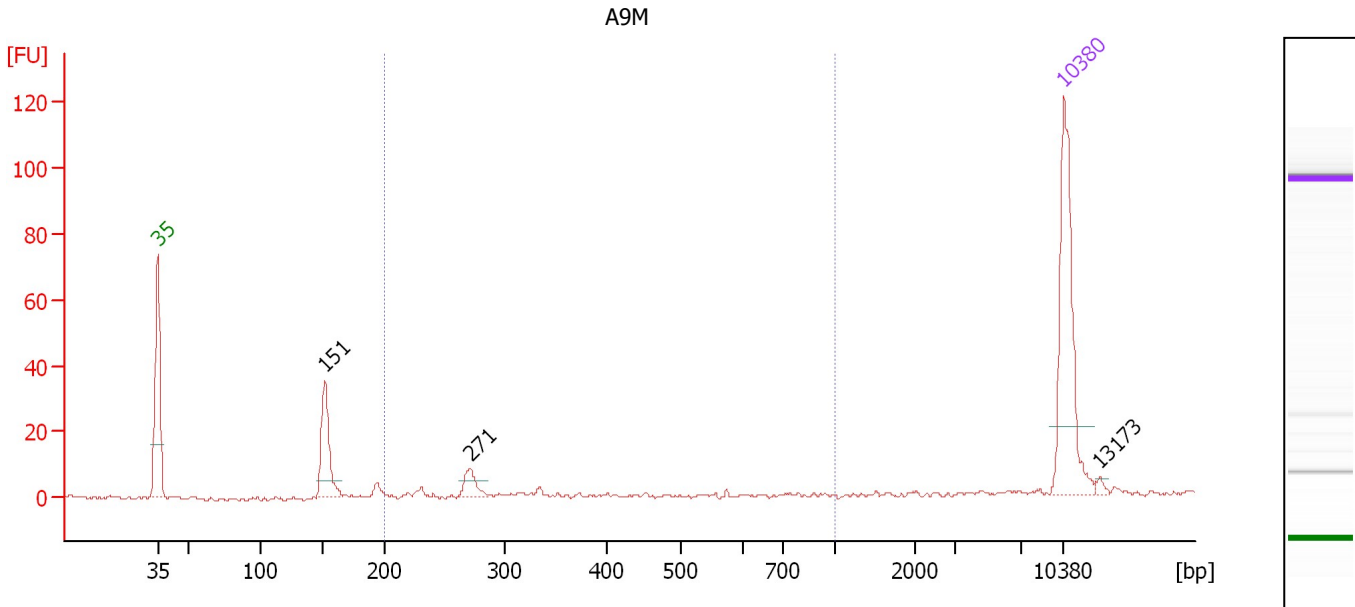
**Region table for sample 6 : A4H**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	425	383.83	291.6	1,653.8	73	35.5

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-07-05\2019-07-05\_002.xad

Created: 7/5/2019 11:52:07 AM  
 Modified: 7/5/2019 12:30:00 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : A9M**

Number of peaks found: 3                      Corr. Area 1: 21.8  
 Noise: 0.7

**Peak table for sample 7 : A9M**

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	151	54.26	545.4		55.88
3	271	13.90	77.7		67.12
4	10,380	75.00	10.9	Upper Marker	113.00
5	13,173	0.00	0.0		115.78

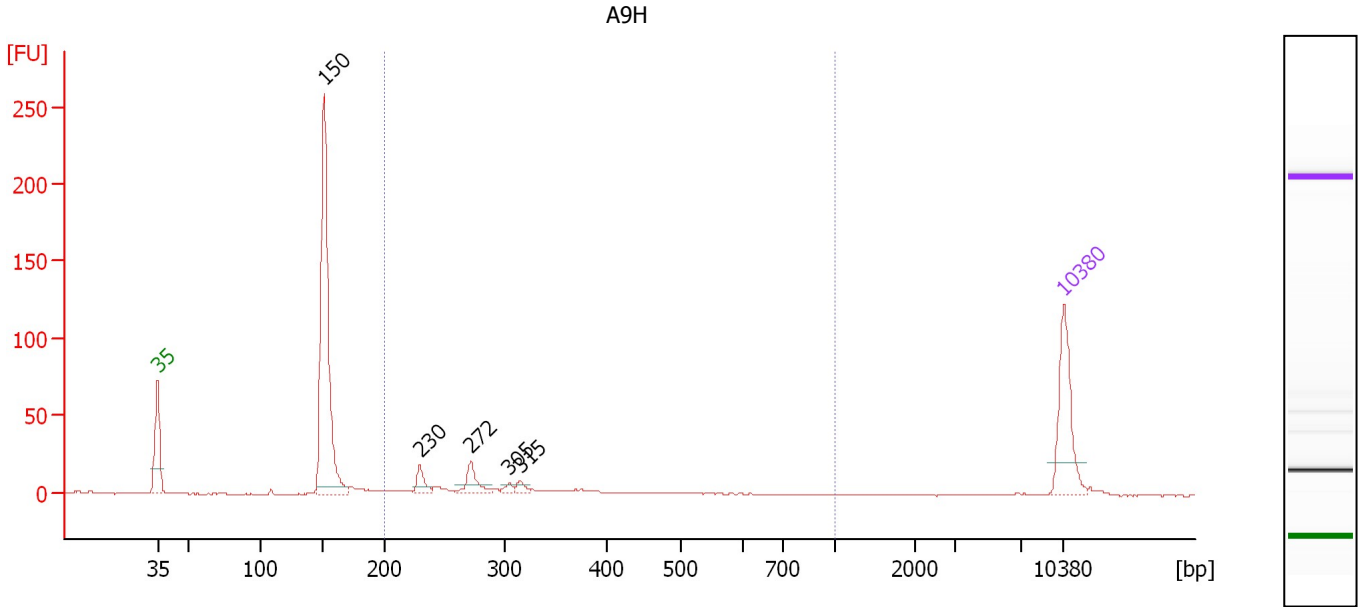
**Region table for sample 7 : A9M**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	355	21.86	21.8	111.6	22	48.1

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-07-05\2019-07-05\_002.xad

Created: 7/5/2019 11:52:07 AM  
 Modified: 7/5/2019 12:30:00 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : A9H**

Number of peaks found: 5                      Corr. Area 1: 80.7  
 Noise: 0.2

**Peak table for sample 8 : A9H**

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	150	398.63	4,018.6		55.83
3	230	22.15	146.2		63.28
4	272	31.61	175.9		67.22
5	305	7.12	35.4		70.17
6	315	9.46	45.5		71.00
7	10,380	75.00	10.9	Upper Marker	113.00

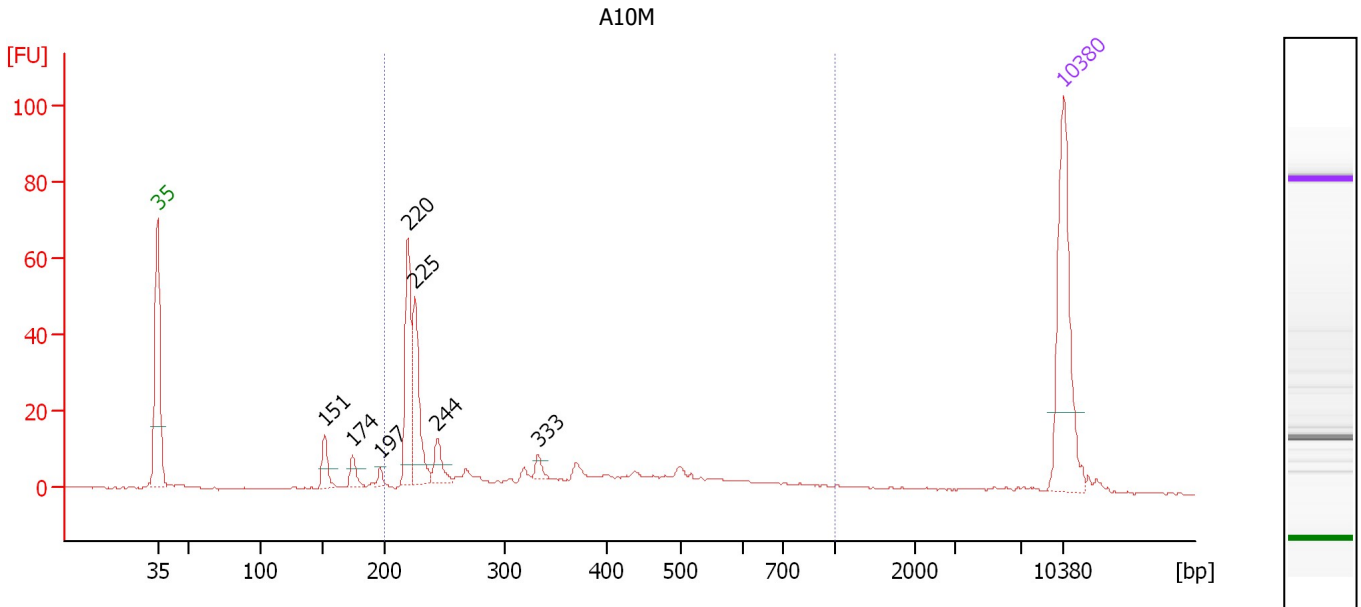
**Region table for sample 8 : A9H**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
200	1,000	278	85.59	80.7	477.9	20	15.4

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-07-05\2019-07-05\_002.xad

Created: 7/5/2019 11:52:07 AM  
 Modified: 7/5/2019 12:30:00 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : A10M**

Number of peaks found: 7                      Corr. Area 1: 257.2  
 Noise: 0.3

**Peak table for sample 9 : A10M**

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	151	18.79	188.2		55.93
3	174	11.16	97.2		58.07
4	197	4.85	37.4		60.22
5	220	74.24	512.1		62.36
6	225	59.64	401.4		62.87
7	244	17.34	107.7		64.62
8	333	6.14	28.0		72.41
9	10,380	75.00	10.9	Upper Marker	113.00

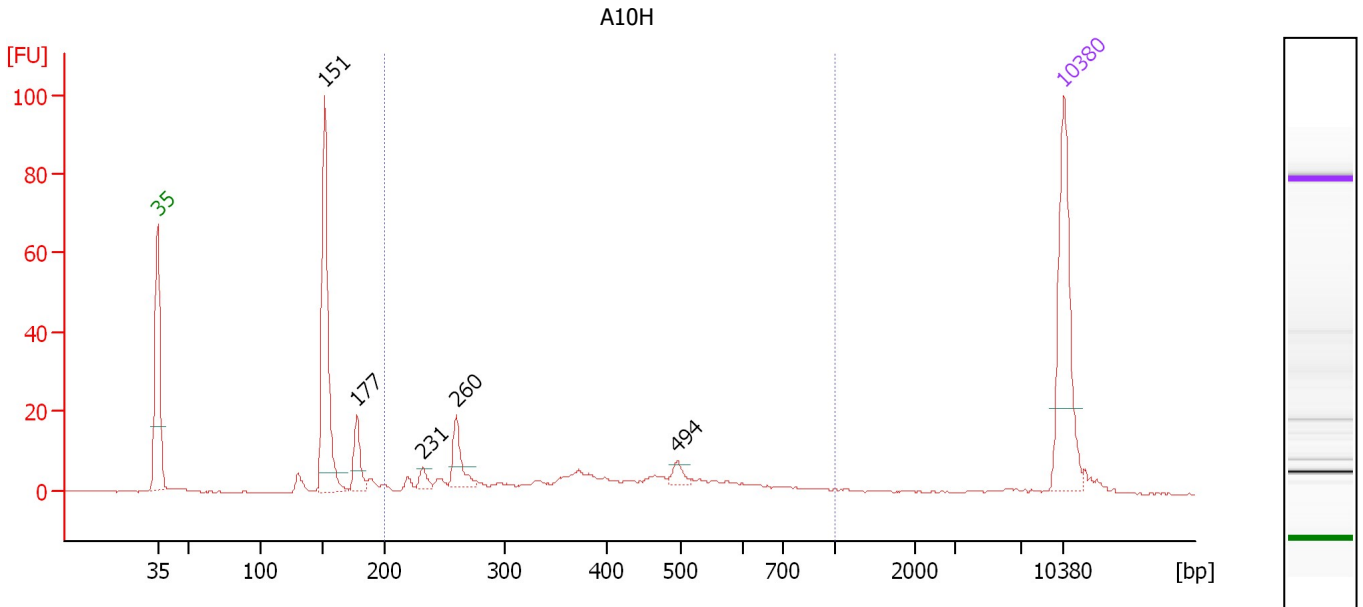
**Region table for sample 9 : A10M**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
200	1,000	361	314.16	257.2	1,663.5	76	46.6

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-07-05\2019-07-05\_002.xad

Created: 7/5/2019 11:52:07 AM  
 Modified: 7/5/2019 12:30:00 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : A10H**

Number of peaks found: 5                      Corr. Area 1: 155.3  
 Noise: 0.2

**Peak table for sample 10 : A10H**

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	151	156.32	1,569.8		55.89
3	177	27.93	238.4		58.41
4	231	8.11	53.1		63.45
5	260	27.65	161.2		66.09
6	494	7.65	23.5		83.10
7	10,380	75.00	10.9	Upper Marker	113.00

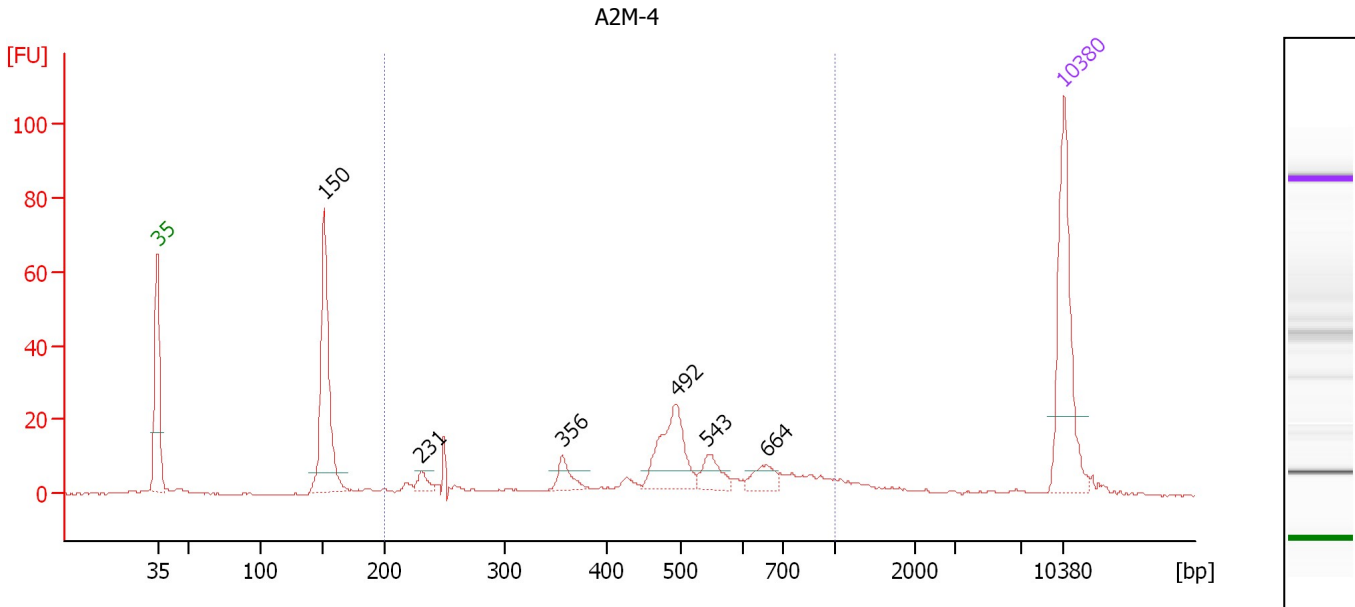
**Region table for sample 10 : A10H**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	421	194.16	155.3	848.0	47	38.5

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-07-05\2019-07-05\_002.xad

Created: 7/5/2019 11:52:07 AM  
 Modified: 7/5/2019 12:30:00 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : A2M-4**

Number of peaks found: 6                      Corr. Area 1: 204.6  
 Noise: 0.2

**Peak table for sample 11 : A2M-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	150	135.18	1,362.3		55.84
3	231	8.63	56.7		63.39
4	356	14.55	61.9		74.25
5	492	60.50	186.1		83.02
6	543	18.37	51.3		85.46
7	664	14.74	33.6		90.11
8	10,380	75.00	10.9	Upper Marker	113.00

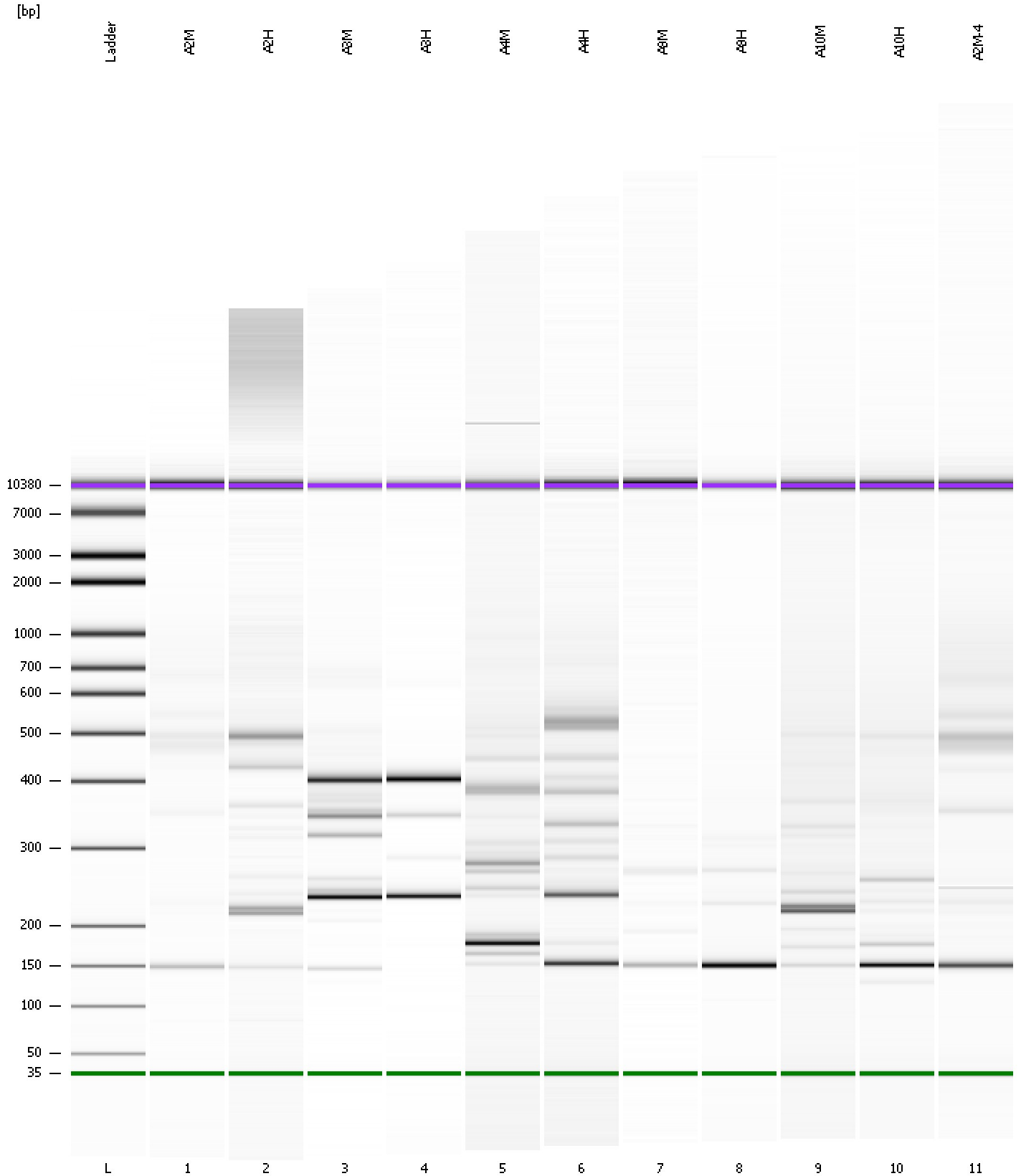
**Region table for sample 11 : A2M-4**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
200	1,000	509	215.60	204.6	780.8	58	33.8

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2019-07-05\2019-07-05\_002.xad

Created: 7/5/2019 11:52:07 AM  
Modified: 7/5/2019 12:30:00 PM

**Gel Image**



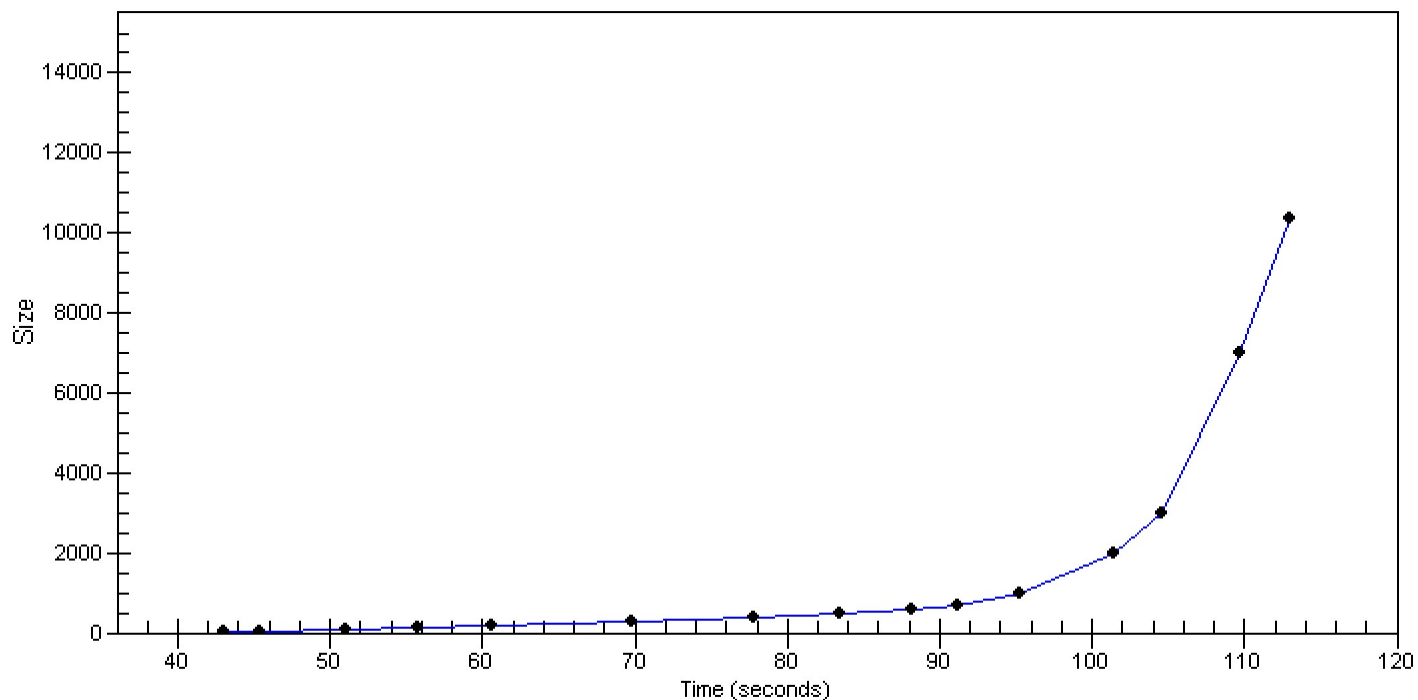


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2019-07-05\2019-07-05\_002.xad

Created: 7/5/2019 11:52:07 AM  
Modified: 7/5/2019 12:30:00 PM

**Curves**

**Standard Curve**



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-07-05\2019-07-05\_002.xad

Created: 7/5/2019 11:52:07 AM  
 Modified: 7/5/2019 12:30:00 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		7/5/2019 12:32:29 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\2019-07-05\2019-07-05_002.xad)		Instrument	Run		7/5/2019 11:52:07 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938C		Instrument	Run		7/5/2019 11:52:07 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		7/5/2019 11:52:07 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		7/5/2019 11:52:07 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE34903152		Instrument	Run		7/5/2019 11:52:07 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		7/5/2019 11:52:07 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		7/5/2019 11:52:07 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1