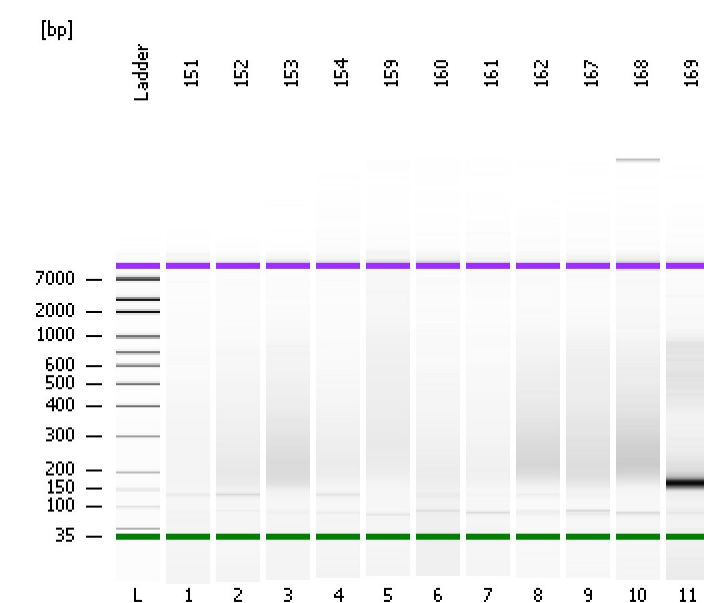


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...gh Sensitivity DNA Assay_DE72902486_2016-12-14_14-05-21.xad

Created: 12/14/2016 2:05:21 PM
Modified: 12/14/2016 2:46:43 PM

Electrophoresis File Run Summary



Instrument Information:

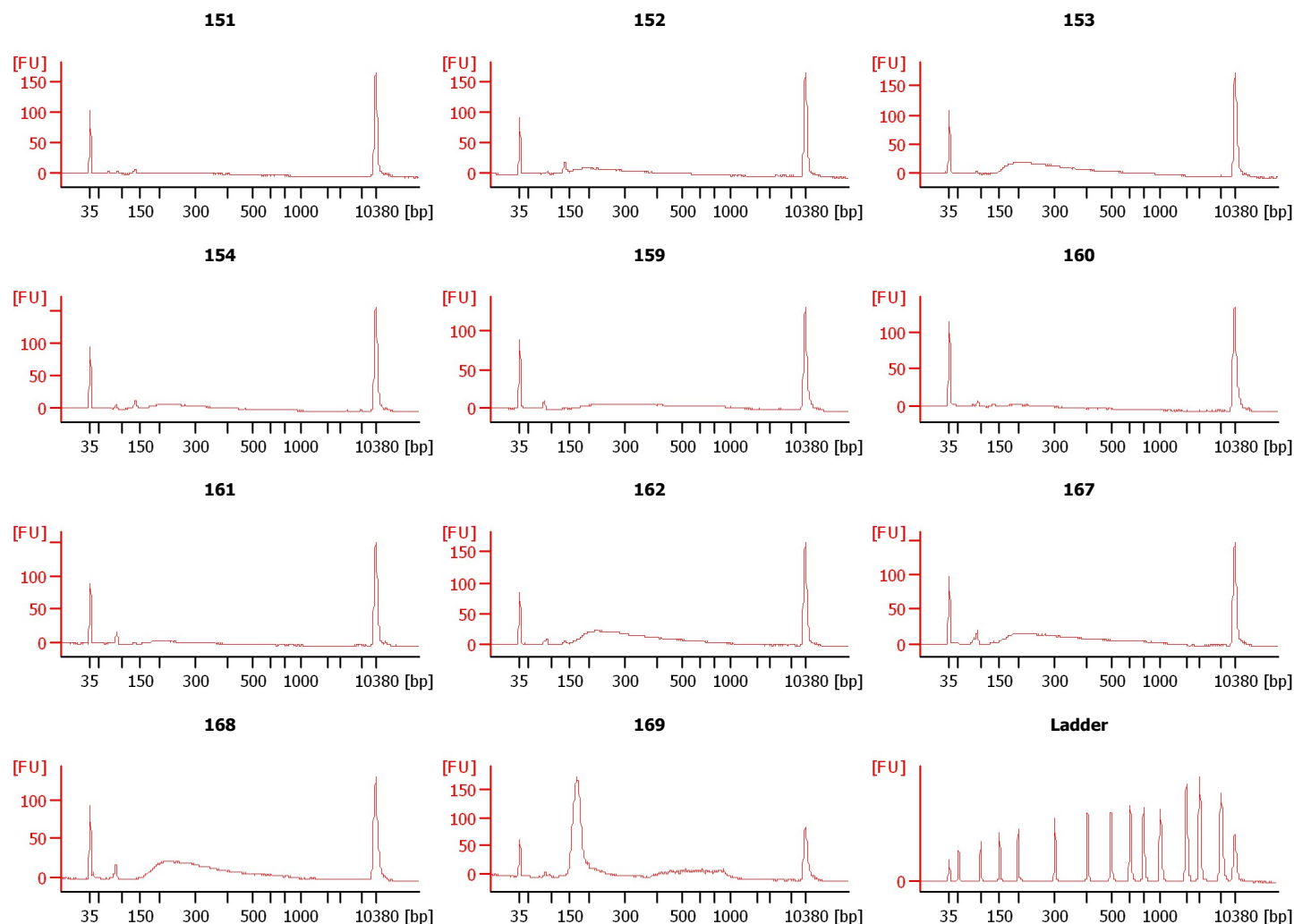
Instrument Name: DE72902486 Firmware: C.01.069
Serial#: DE72902486 Type: G2939A

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: 1.0
Assay Comments: Copyright © 2003-2009 Agilent Technologies

Chip Information:

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



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...gh Sensitivity DNA Assay_DE72902486_2016-12-14_14-05-21.xad

Created: 12/14/2016 2:05:21 PM
Modified: 12/14/2016 2:46:43 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Stat us	Observation	Result Label	Result Color
151		<input type="checkbox"/>	✓			
152		<input type="checkbox"/>	✓			
153		<input type="checkbox"/>	✓			
154		<input type="checkbox"/>	✓			
159		<input type="checkbox"/>	✓			
160		<input type="checkbox"/>	✓			
161		<input type="checkbox"/>	✓			
162		<input type="checkbox"/>	✓			
167		<input type="checkbox"/>	✓			
168		<input type="checkbox"/>	✓			
169		<input type="checkbox"/>	✓			

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

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...gh Sensitivity DNA Assay_DE72902486_2016-12-14_14-05-21.xad

Created: 12/14/2016 2:05:21 PM
Modified: 12/14/2016 2:46:43 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/ μ l] : 1950
Uses Standard Area for Ladder Fragments
Lower Marker Concentration [pg/ μ l] : 125
Upper Marker Concentration [pg/ μ l] : 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

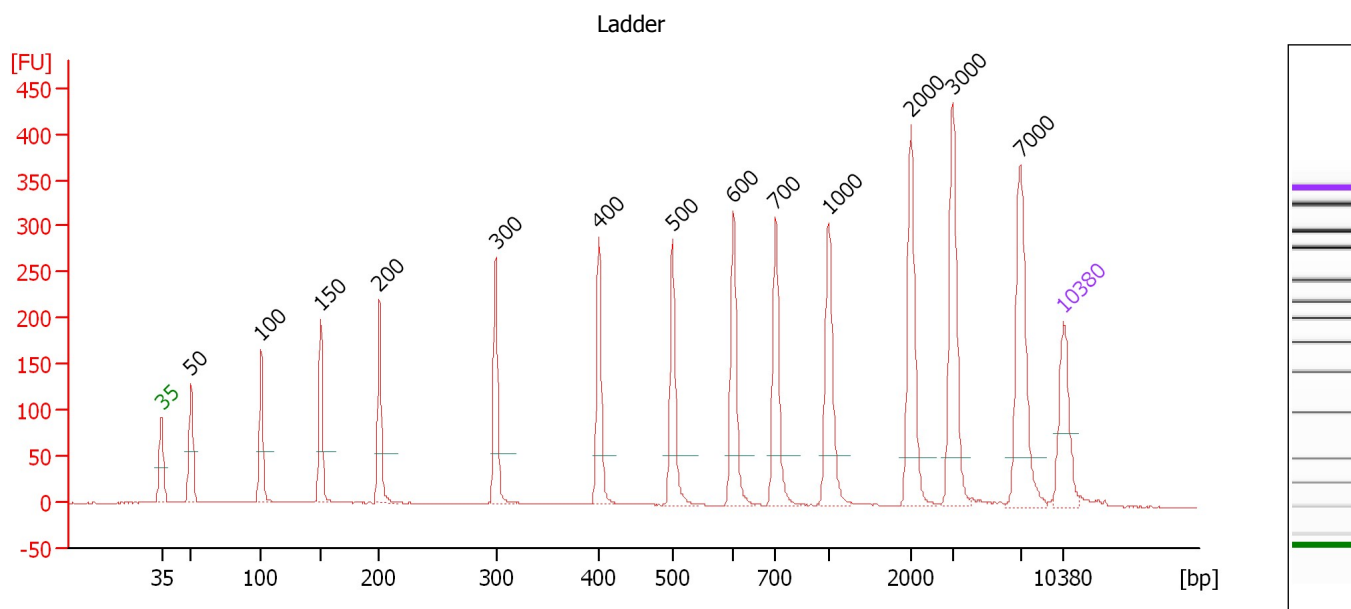
Ladder

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:\...gh Sensitivity DNA Assay_DE72902486_2016-12-14_14-05-21.xad

Created: 12/14/2016 2:05:21 PM
 Modified: 12/14/2016 2:46:43 PM

Electropherogram Summary



Setpoint Deviations for sample 12 : Ladder

Height Threshold [FU] : 20 Baseline Plateau [s] : 0.3
 Area Threshold : 0

Overall Results for Ladder

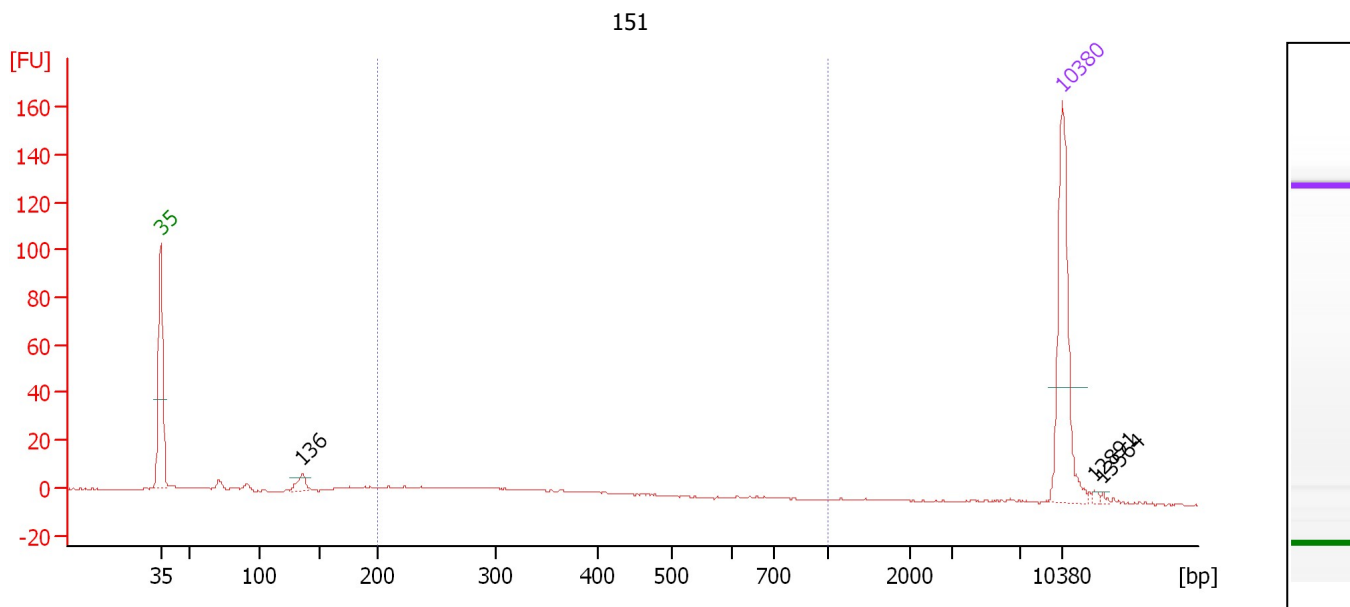
Noise: 0.2

Peak table for Ladder

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	50	150.00	4,545.5	Ladder Peak
3	100	150.00	2,272.7	Ladder Peak
4	150	150.00	1,515.2	Ladder Peak
5	200	150.00	1,136.4	Ladder Peak
6	300	150.00	757.6	Ladder Peak
7	400	150.00	568.2	Ladder Peak
8	500	150.00	454.5	Ladder Peak
9	600	150.00	378.8	Ladder Peak
10	700	150.00	324.7	Ladder Peak
11	1,000	150.00	227.3	Ladder Peak
12	2,000	150.00	113.6	Ladder Peak
13	3,000	150.00	75.8	Ladder Peak
14	7,000	150.00	32.5	Ladder Peak
15	10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...gh Sensitivity DNA Assay_DE72902486_2016-12-14_14-05-21.xad

Created: 12/14/2016 2:05:21 PM
 Modified: 12/14/2016 2:46:43 PM

Electropherogram Summary Continued ...**Overall Results for sample 1 : 151**

Number of peaks found: 3 Corr. Area 1: 80.6
 Noise: 0.3

Peak table for sample 1 : 151

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	136	10.99	122.9	
3	10,380	75.00	10.9	Upper Marker
4	12,891	0.00	0.0	
5	13,564	0.00	0.0	

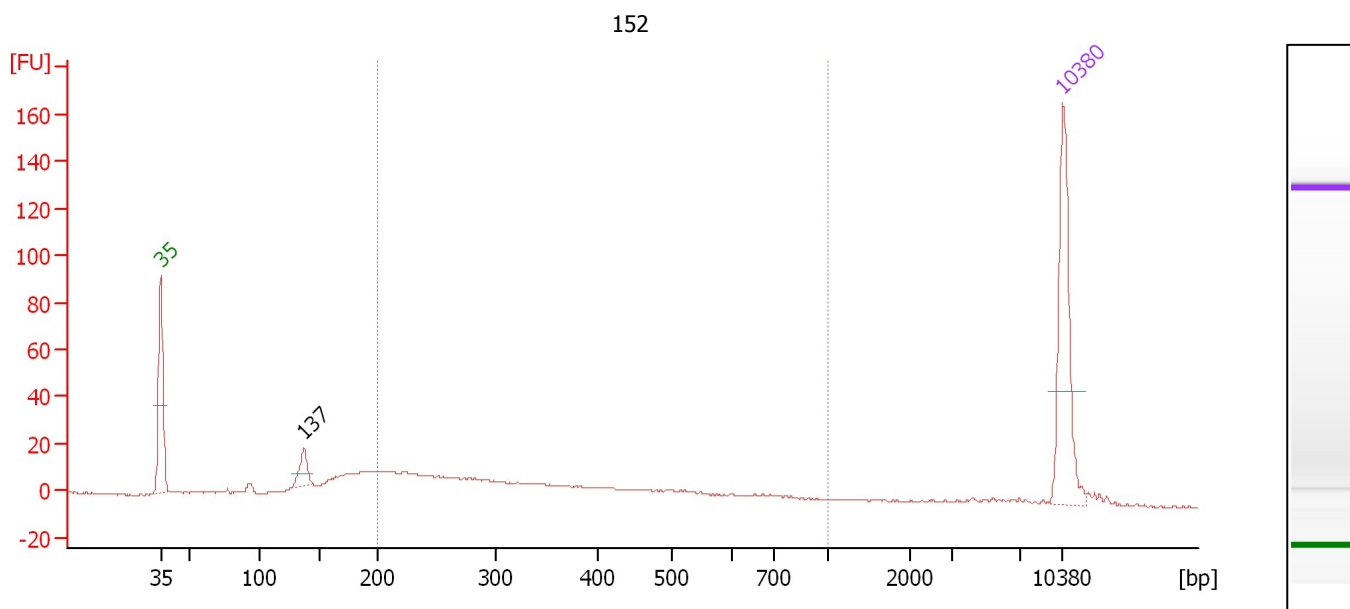
Region table for sample 1 : 151

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,000	80.6	54	341	35.7	67.37	340.1	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...gh Sensitivity DNA Assay_DE72902486_2016-12-14_14-05-21.xad

Created: 12/14/2016 2:05:21 PM
 Modified: 12/14/2016 2:46:43 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : 152

Number of peaks found: 1 Corr. Area 1: 248.3
 Noise: 0.3

Peak table for sample 2 : 152

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	137	20.36	225.6	
3	10,380	75.00	10.9	Upper Marker

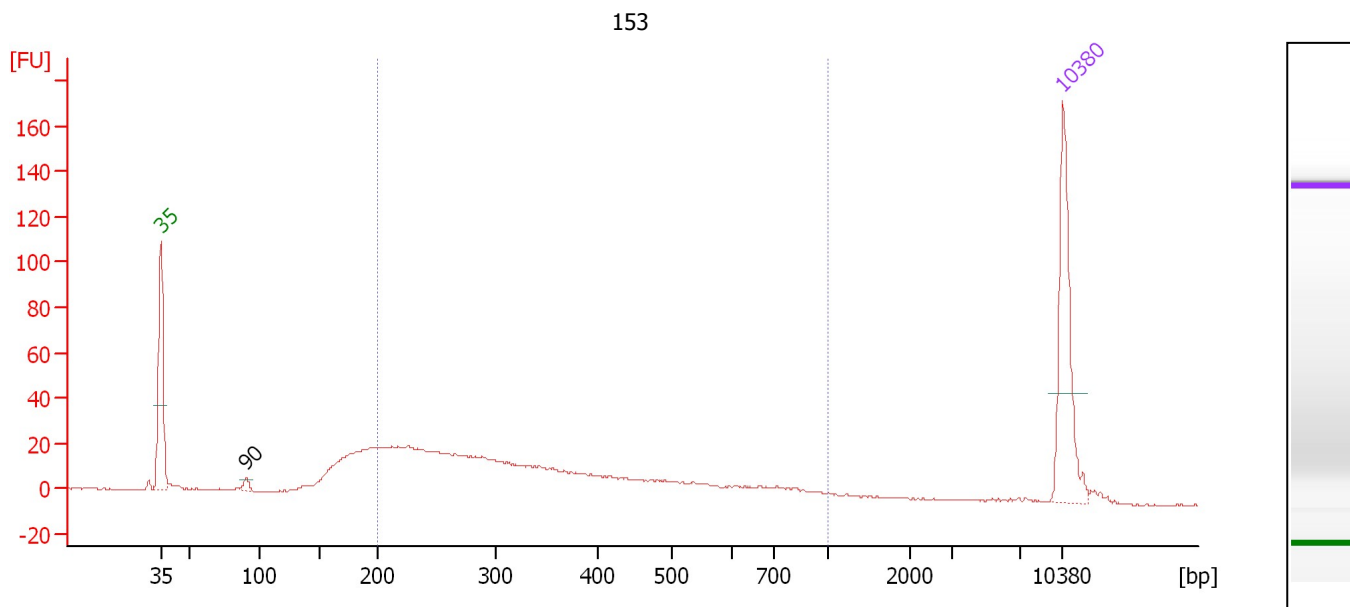
Region table for sample 2 : 152

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,000	248.3	63	358	40.5	199.62	1,007.7	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...gh Sensitivity DNA Assay_DE72902486_2016-12-14_14-05-21.xad

Created: 12/14/2016 2:05:21 PM
 Modified: 12/14/2016 2:46:43 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : 153

Number of peaks found: 1 Corr. Area 1: 520.0
 Noise: 0.4

Peak table for sample 3 : 153

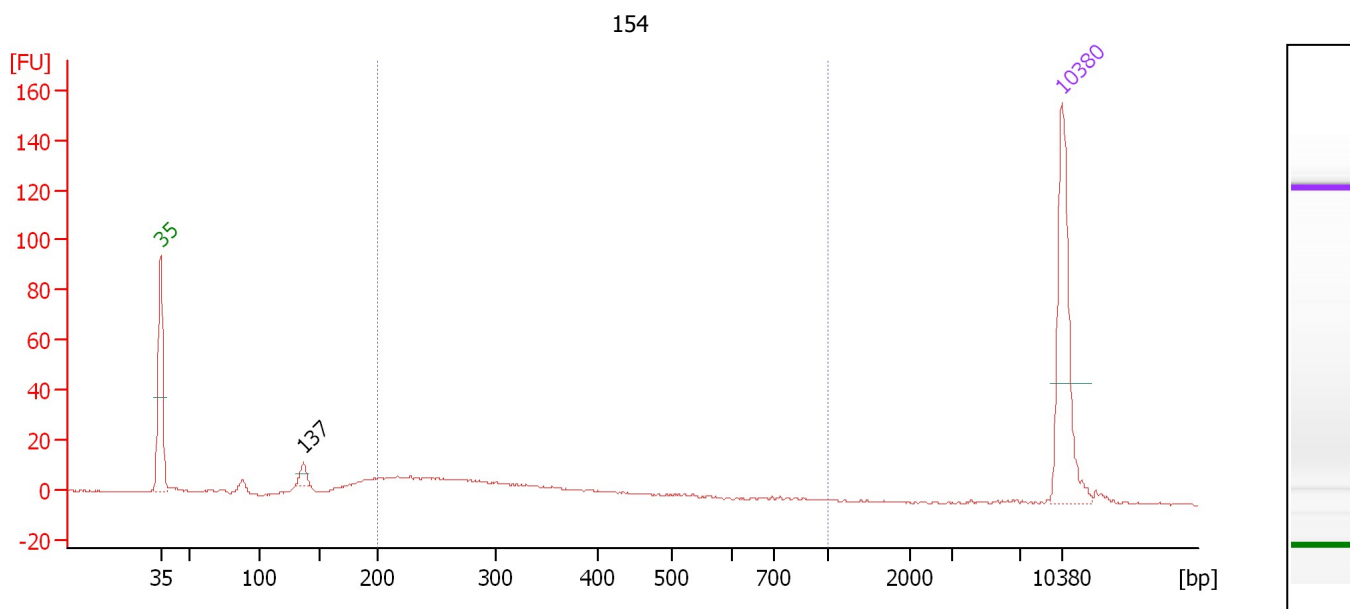
Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	90	6.00	100.8	
3	10,380	75.00	10.9	Upper Marker

Region table for sample 3 : 153

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,000	520.0	75	362	42.5	395.91	1,993.5	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...gh Sensitivity DNA Assay_DE72902486_2016-12-14_14-05-21.xad

Created: 12/14/2016 2:05:21 PM
 Modified: 12/14/2016 2:46:43 PM

Electropherogram Summary Continued ...**Overall Results for sample 4 : 154**

Number of peaks found: 1 Corr. Area 1: 153.7
 Noise: 0.4

Peak table for sample 4 : 154

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	137	9.68	107.4	
3	10,380	75.00	10.9	Upper Marker

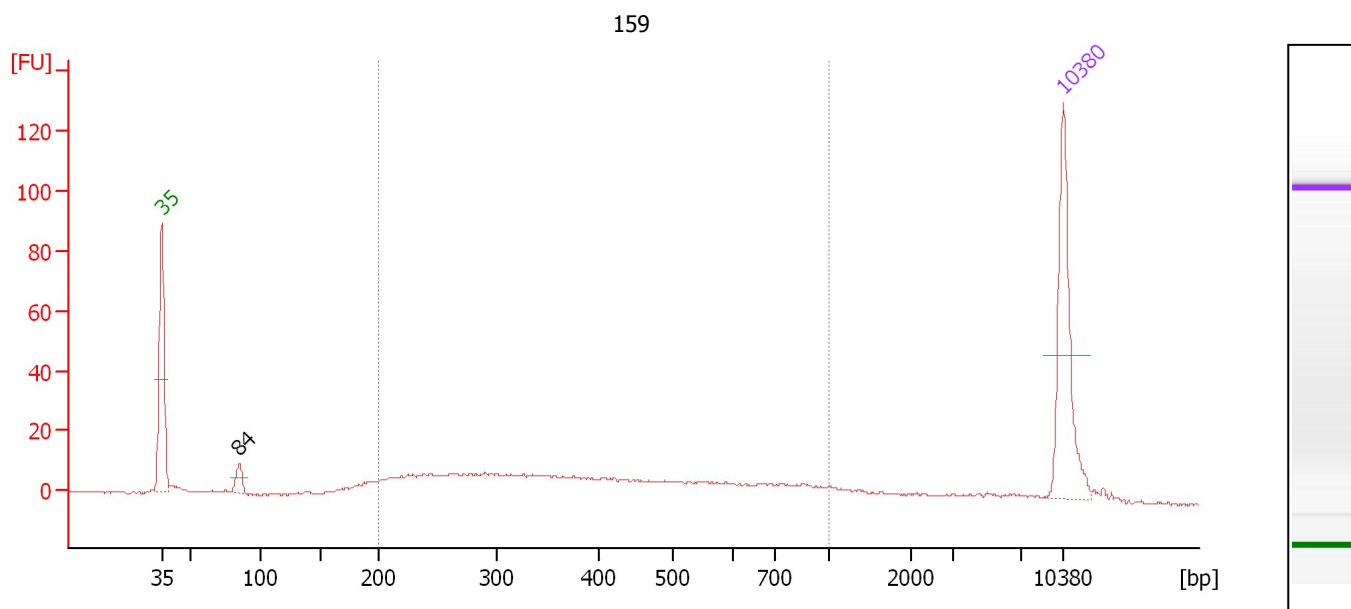
Region table for sample 4 : 154

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,000	153.7	69	317	34.3	125.18	668.0	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...gh Sensitivity DNA Assay_DE72902486_2016-12-14_14-05-21.xad

Created: 12/14/2016 2:05:21 PM
 Modified: 12/14/2016 2:46:43 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : 159

Number of peaks found: 1 Corr. Area 1: 274.1
 Noise: 0.4

Peak table for sample 5 : 159

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	84	14.64	264.0	
3	10,380	75.00	10.9	Upper Marker

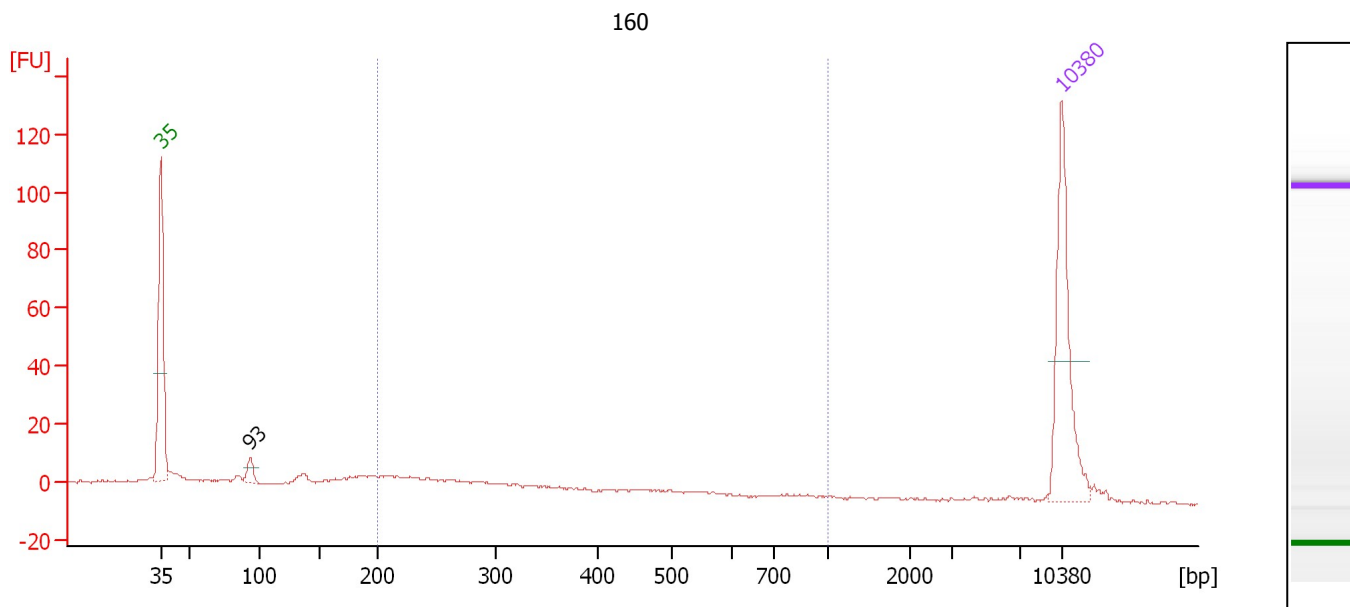
Region table for sample 5 : 159

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,000	274.1	77	429	42.6	251.97	1,112.5	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...gh Sensitivity DNA Assay_DE72902486_2016-12-14_14-05-21.xad

Created: 12/14/2016 2:05:21 PM
 Modified: 12/14/2016 2:46:43 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : 160

Number of peaks found: 1 Corr. Area 1: 54.3
 Noise: 0.4

Peak table for sample 6 : 160

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	93	10.93	178.6	
3	10,380	75.00	10.9	Upper Marker

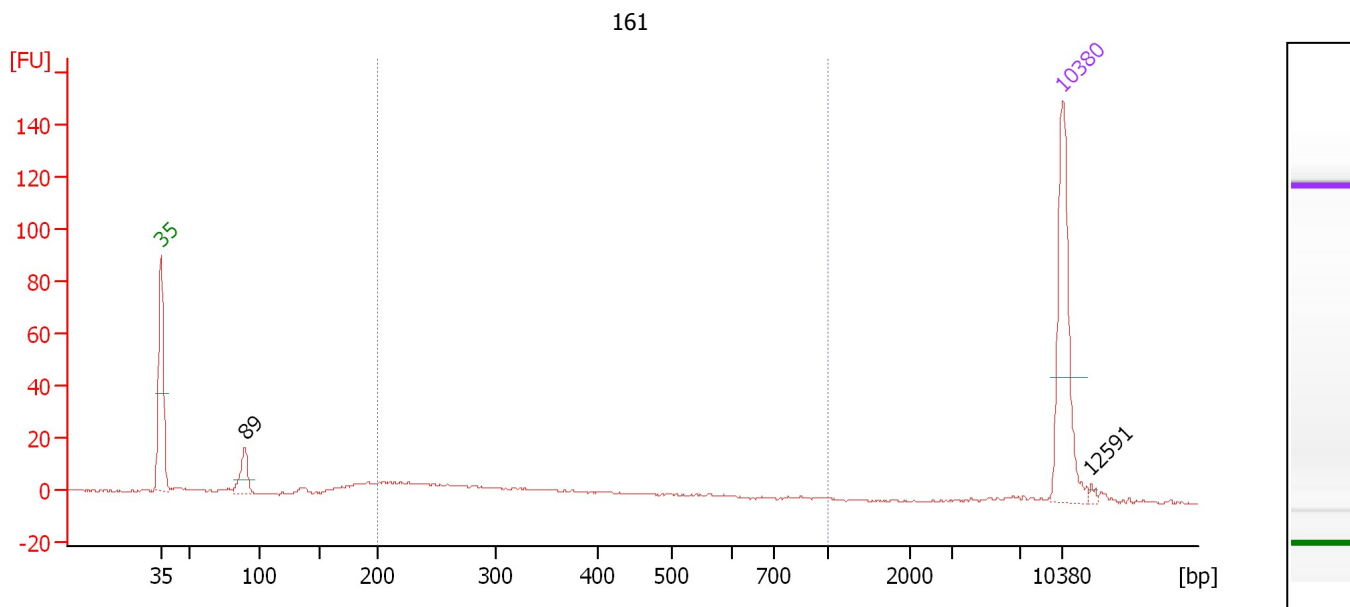
Region table for sample 6 : 160

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,000	54.3	38	273	23.4	48.56	282.7	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...gh Sensitivity DNA Assay_DE72902486_2016-12-14_14-05-21.xad

Created: 12/14/2016 2:05:21 PM
 Modified: 12/14/2016 2:46:43 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : 161

Number of peaks found: 2 Corr. Area 1: 82.7
 Noise: 0.4

Peak table for sample 7 : 161

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	89	27.80	474.5	
3	10,380	75.00	10.9	Upper Marker
4	12,591	0.00	0.0	

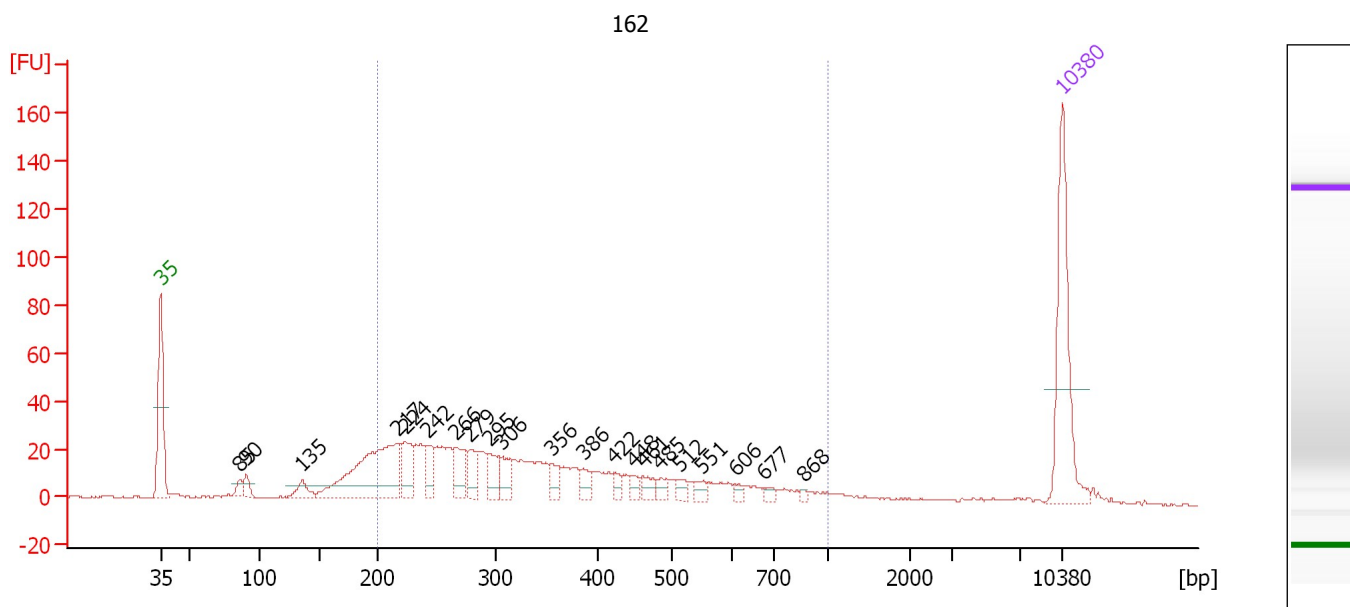
Region table for sample 7 : 161

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,000	82.7	57	317	34.7	71.73	385.4	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...gh Sensitivity DNA Assay_DE72902486_2016-12-14_14-05-21.xad

Created: 12/14/2016 2:05:21 PM
 Modified: 12/14/2016 2:46:43 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : 162

Number of peaks found: 21 Corr. Area 1: 634.7
 Noise: 0.4

Peak table for sample 8 : 162

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	85	7.98	142.3	
3	90	10.69	179.7	
4	135	12.56	140.6	
5	217	125.89	880.1	
6	224	29.99	202.8	
7	242	19.86	124.3	
8	266	25.69	146.2	
9	279	20.50	111.4	
10	295	19.06	97.9	
11	306	18.34	90.9	
12	356	11.36	48.3	
13	386	11.19	43.9	
14	422	7.25	26.0	
15	448	6.00	20.3	
16	461	10.35	34.0	
17	485	7.34	22.9	
18	512	6.38	18.9	
19	551	6.60	18.2	
20	606	3.67	9.2	
21	677	4.21	9.4	
22	868	2.16	3.8	
23	10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...gh Sensitivity DNA Assay_DE72902486_2016-12-14_14-05-21.xad

Created: 12/14/2016 2:05:21 PM
Modified: 12/14/2016 2:46:43 PM

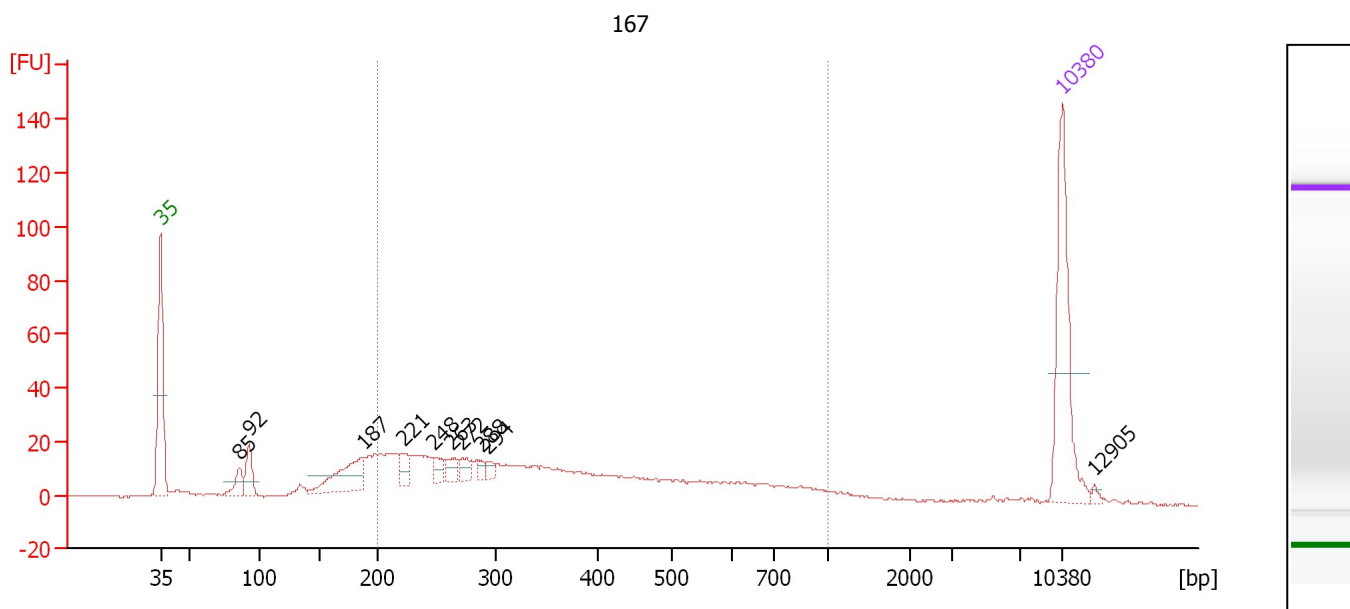
Electropherogram Summary Continued ...**... Region table for sample 8 : 162**

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/ μ l]	Molarity [pmol/l]	Co lor
200	1,000	634.7	79	368	41.8	505.89	2,501.8	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...gh Sensitivity DNA Assay_DE72902486_2016-12-14_14-05-21.xad

Created: 12/14/2016 2:05:21 PM
 Modified: 12/14/2016 2:46:43 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : 167

Number of peaks found: 10 Corr. Area 1: 487.2
 Noise: 0.3

Peak table for sample 9 : 167

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	85	16.46	292.9	
3	92	23.70	389.4	
4	187	47.45	384.5	
5	221	13.49	92.4	
6	248	11.23	68.6	
7	263	11.24	64.7	
8	272	9.18	51.1	
9	288	5.86	30.8	
10	294	5.87	30.3	
11	10,380	75.00	10.9	Upper Marker
12	12,905	0.00	0.0	

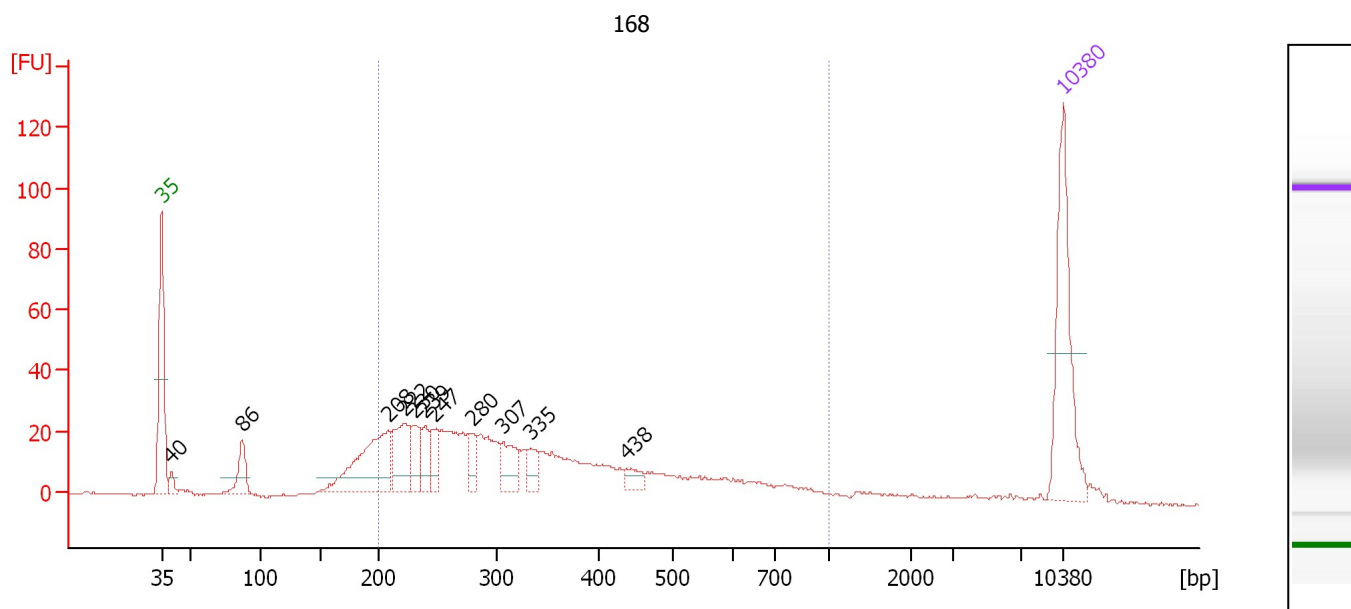
Region table for sample 9 : 167

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,000	487.2	72	388	43.5	401.66	1,931.8	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...gh Sensitivity DNA Assay_DE72902486_2016-12-14_14-05-21.xad

Created: 12/14/2016 2:05:21 PM
 Modified: 12/14/2016 2:46:43 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : 168

Number of peaks found: 11 Corr. Area 1: 243.3
 Noise: 0.4

Peak table for sample 10 : 168

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	40	8.09	308.8	
3	86	27.09	475.1	
4	208	93.29	680.8	
5	222	46.97	320.9	
6	230	24.74	163.2	
7	239	20.38	129.3	
8	247	19.56	120.1	
9	280	17.91	97.0	
10	307	27.22	134.5	
11	335	13.62	61.7	
12	438	9.70	33.6	
13	10,380	75.00	10.9	Upper Marker

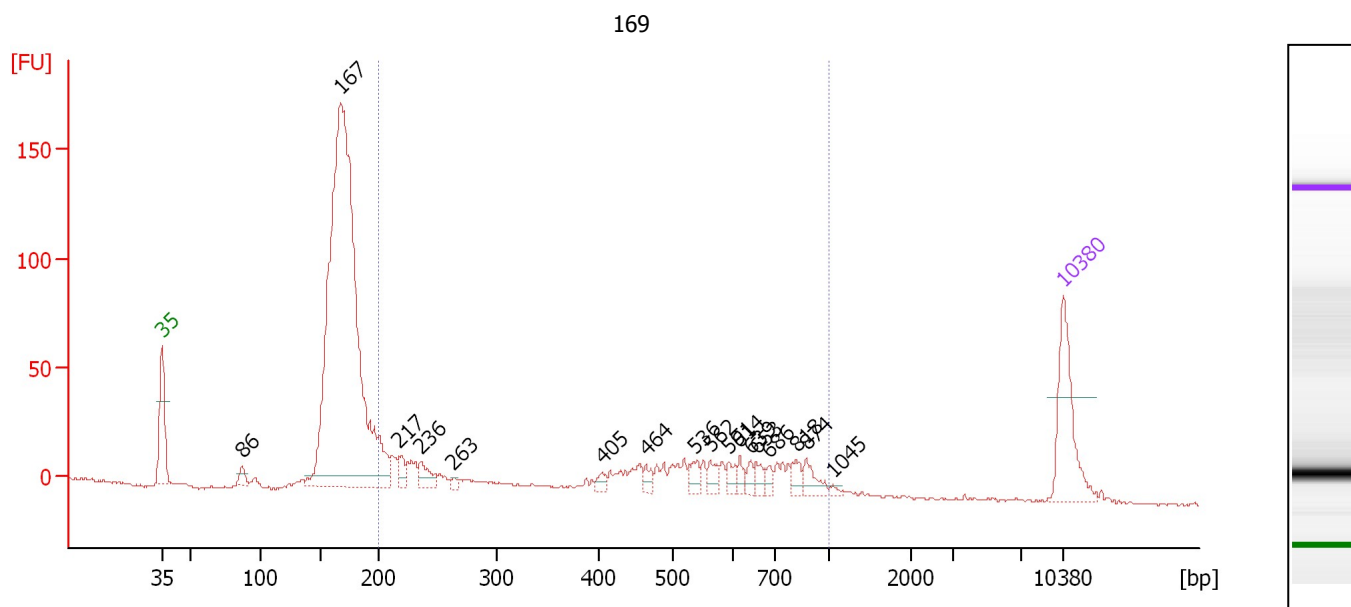
Region table for sample 10 : 168

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,000	243.3	82	266	16.9	221.23	1,291.8	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...gh Sensitivity DNA Assay_DE72902486_2016-12-14_14-05-21.xad

Created: 12/14/2016 2:05:21 PM
 Modified: 12/14/2016 2:46:43 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : 169

Number of peaks found: 17 Corr. Area 1: 335.1
 Noise: 0.6

Peak table for sample 11 : 169

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	86	12.45	218.3	
3	167	1,042.10	9,444.6	
4	217	17.57	122.5	
5	236	23.87	153.5	
6	263	5.71	32.8	
7	405	8.43	31.5	
8	464	9.68	31.6	
9	536	14.73	41.7	
10	562	12.94	34.9	
11	591	10.89	27.9	
12	614	9.69	23.9	
13	639	10.01	23.7	
14	653	12.18	28.3	
15	686	8.70	19.2	
16	818	12.02	22.3	
17	874	18.29	31.7	
18	1,045	3.76	5.4	
19	10,380	75.00	10.9	Upper Marker

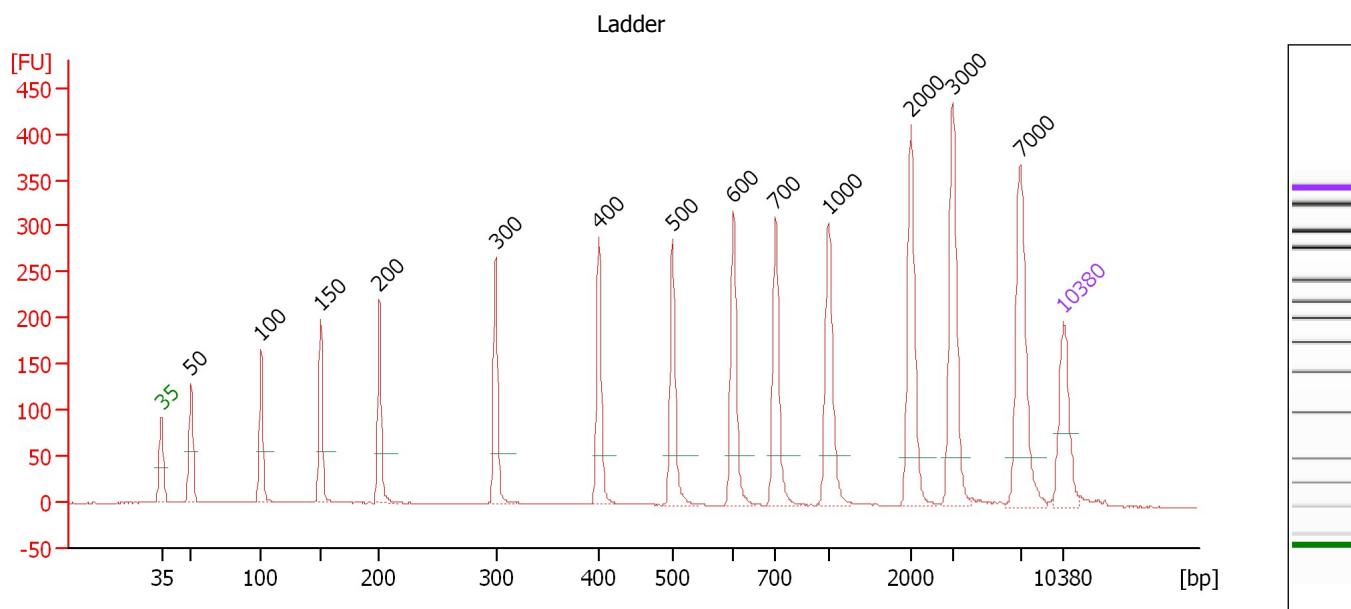
Region table for sample 11 : 169

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,000	335.1	31	508	40.2	350.55	1,438.8	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...gh Sensitivity DNA Assay_DE72902486_2016-12-14_14-05-21.xad

Created: 12/14/2016 2:05:21 PM
 Modified: 12/14/2016 2:46:43 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 12 : Ladder

Height Threshold [FU] : 20 Baseline Plateau [s] : 0.3
 Area Threshold : 0

Overall Results for Ladder

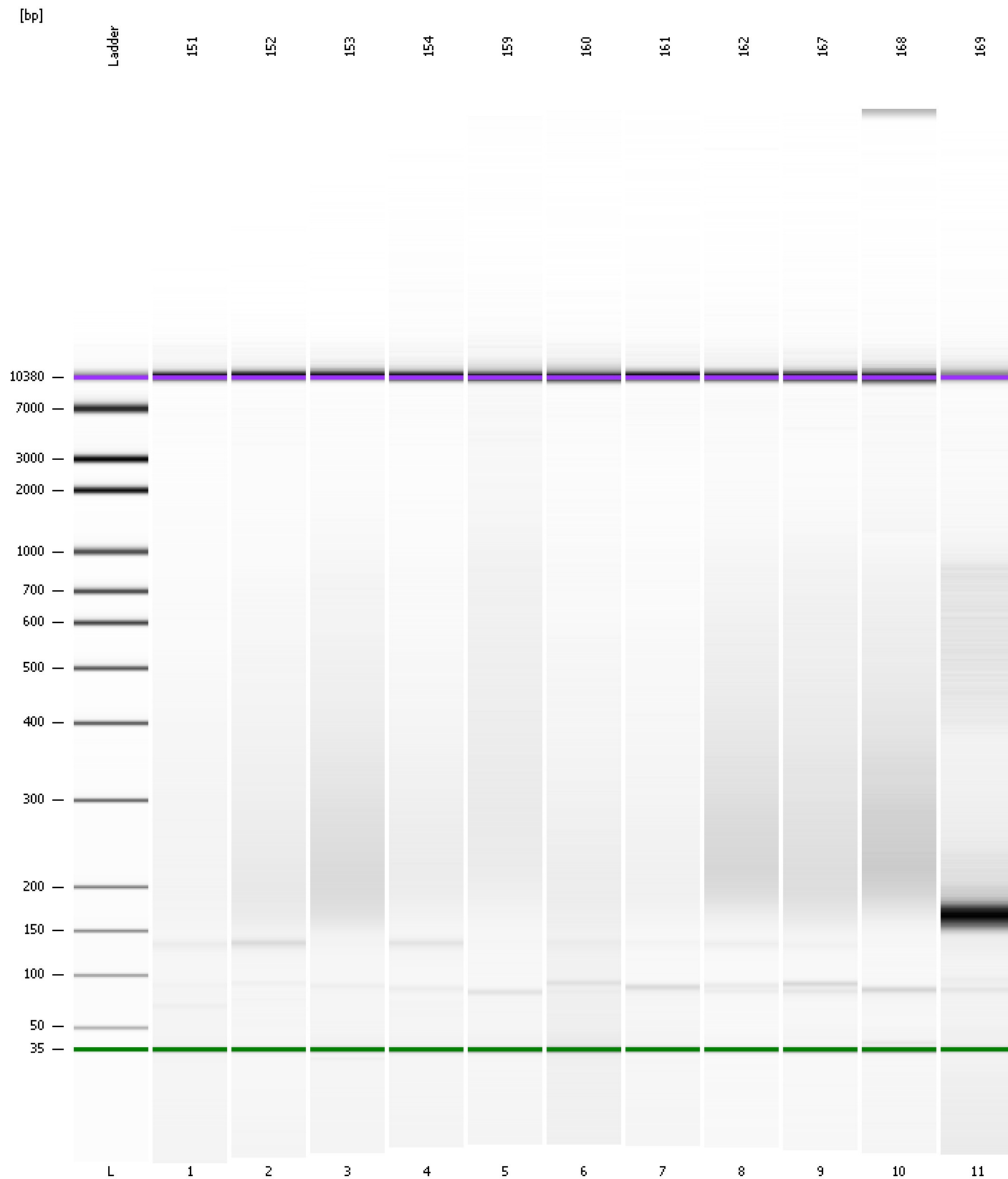
Noise: 0.2

Peak table for Ladder

Peak		Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	◀	35	125.00	5,411.3	Lower Marker
2	└	50	150.00	4,545.5	Ladder Peak
3	└	100	150.00	2,272.7	Ladder Peak
4	└	150	150.00	1,515.2	Ladder Peak
5	└	200	150.00	1,136.4	Ladder Peak
6	└	300	150.00	757.6	Ladder Peak
7	└	400	150.00	568.2	Ladder Peak
8	└	500	150.00	454.5	Ladder Peak
9	└	600	150.00	378.8	Ladder Peak
10	└	700	150.00	324.7	Ladder Peak
11	└	1,000	150.00	227.3	Ladder Peak
12	└	2,000	150.00	113.6	Ladder Peak
13	└	3,000	150.00	75.8	Ladder Peak
14	└	7,000	150.00	32.5	Ladder Peak
15	▶	10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...gh Sensitivity DNA Assay_DE72902486_2016-12-14_14-05-21.xad

Created: 12/14/2016 2:05:21 PM
Modified: 12/14/2016 2:46:43 PM

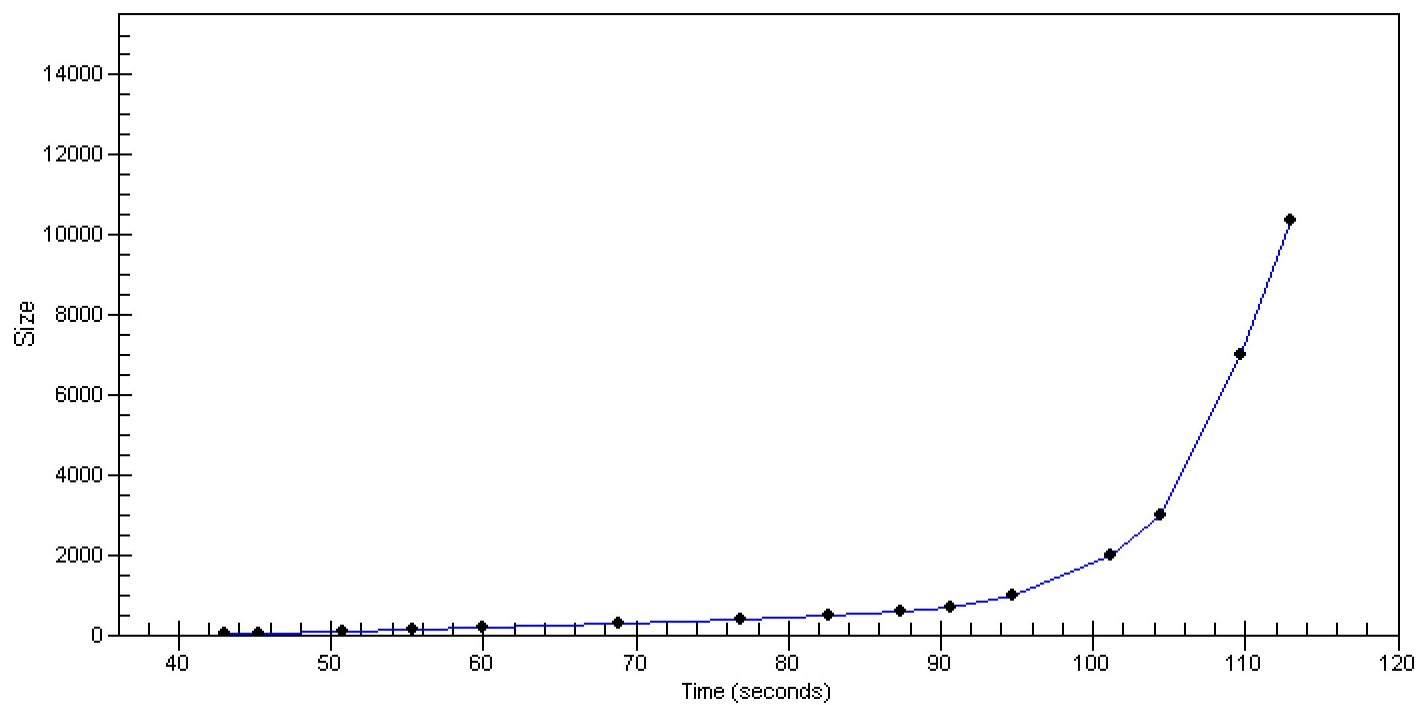
Gel Image

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...gh Sensitivity DNA Assay_DE72902486_2016-12-14_14-05-21.xad

Created: 12/14/2016 2:05:21 PM
Modified: 12/14/2016 2:46:43 PM

Curves

Standard Curve



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...gh Sensitivity DNA Assay_DE72902486_2016-12-14_14-05-21.xad

Created: 12/14/2016 2:05:21 PM
 Modified: 12/14/2016 2:46:43 PM

Run Logbook

Description	Number	Source	Category	Sub Category	Time Stamp	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 12)		Instrument	Run		12/14/2016 2:46:39 PM	(GMT --08:00) Pacific Standard Time	Administrator	DATASYSTEM01
Run started on port 1 (File: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\Data\2016-12-14\2100 expert_High Sensitivity DNA Assay_DE72902486_2016-12-14_14-05-21.xad)		Instrument	Run		12/14/2016 2:05:28 PM	(GMT --08:00) Pacific Standard Time	Administrator	DATASYSTEM01
Product Number : G2939A		Instrument	Run		12/14/2016 2:05:28 PM	(GMT --08:00) Pacific Standard Time	Administrator	DATASYSTEM01
Name :		Instrument	Run		12/14/2016 2:05:28 PM	(GMT --08:00) Pacific Standard Time	Administrator	DATASYSTEM01
Vendor : Agilent Technologies		Instrument	Run		12/14/2016 2:05:28 PM	(GMT --08:00) Pacific Standard Time	Administrator	DATASYSTEM01
Serial# : DE72902486		Instrument	Run		12/14/2016 2:05:28 PM	(GMT --08:00) Pacific Standard Time	Administrator	DATASYSTEM01
Firmware : C.01.069		Instrument	Run		12/14/2016 2:05:28 PM	(GMT --08:00) Pacific Standard Time	Administrator	DATASYSTEM01
Cartridge : Electrode		Instrument	Run		12/14/2016 2:05:28 PM	(GMT --08:00) Pacific Standard Time	Administrator	DATASYSTEM01