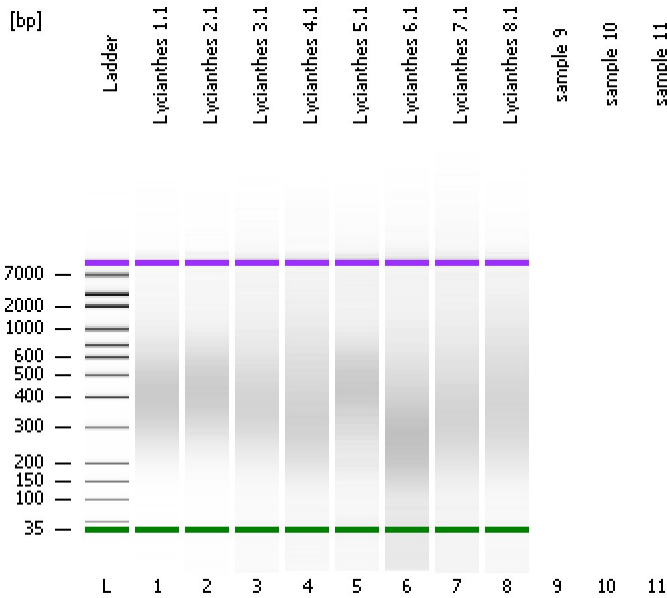


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-11-02\2016-11-02\_001.xad

Created: 11/2/2016 10:17:01 AM  
Modified: 11/2/2016 10:53:05 AM

**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

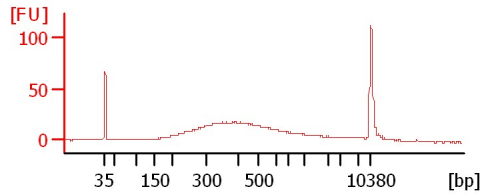
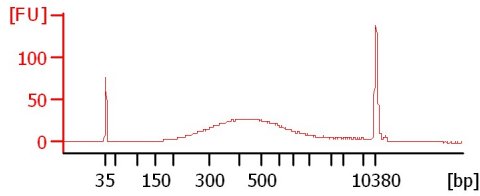
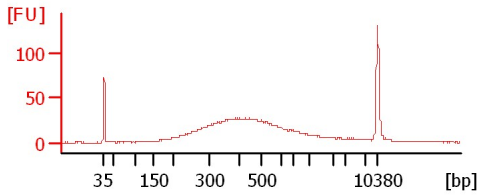
Chip Information:

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

**Lycianthes 1.1**

**Lycianthes 2.1**

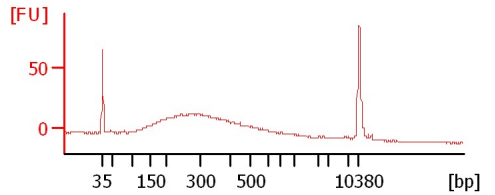
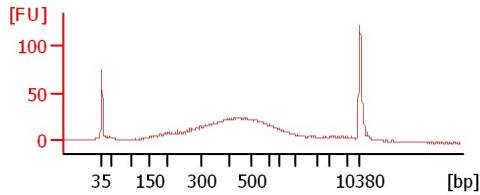
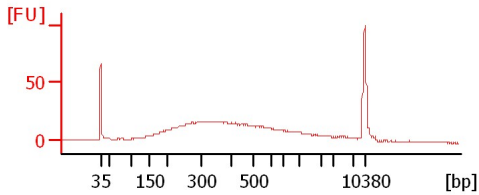
**Lycianthes 3.1**



**Lycianthes 4.1**

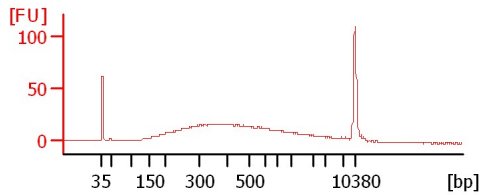
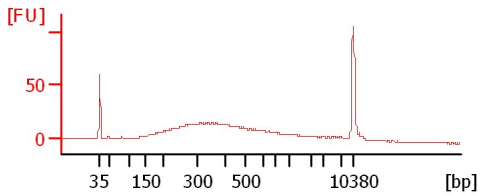
**Lycianthes 5.1**

**Lycianthes 6.1**



**Lycianthes 7.1**

**Lycianthes 8.1**



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-11-02\2016-11-02\_001.xad

Created: 11/2/2016 10:17:01 AM  
 Modified: 11/2/2016 10:53:05 AM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
Lycianthes 1.1		<input type="checkbox"/>	✓			
Lycianthes 2.1		<input type="checkbox"/>	✓			
Lycianthes 3.1		<input type="checkbox"/>	✓			
Lycianthes 4.1		<input type="checkbox"/>	✓			
Lycianthes 5.1		<input type="checkbox"/>	✓			
Lycianthes 6.1		<input type="checkbox"/>	✓			
Lycianthes 7.1		<input type="checkbox"/>	✓			
Lycianthes 8.1		<input type="checkbox"/>	✓			
sample 9		<input type="checkbox"/>				
sample 10		<input type="checkbox"/>				
sample 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\2016-11-02\2016-11-02\_001.xad

Created: 11/2/2016 10:17:01 AM  
Modified: 11/2/2016 10:53:05 AM

**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

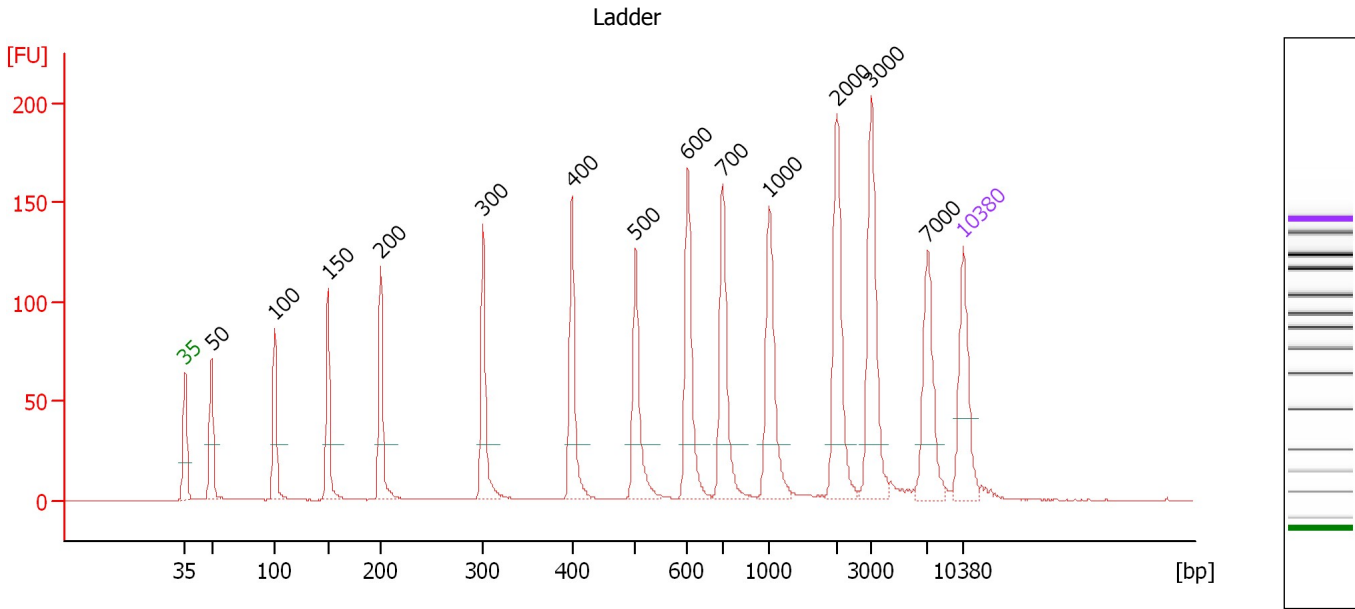
**Ladder**

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\2016-11-02\2016-11-02\_001.xad

Created: 11/2/2016 10:17:01 AM  
 Modified: 11/2/2016 10:53:05 AM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.2

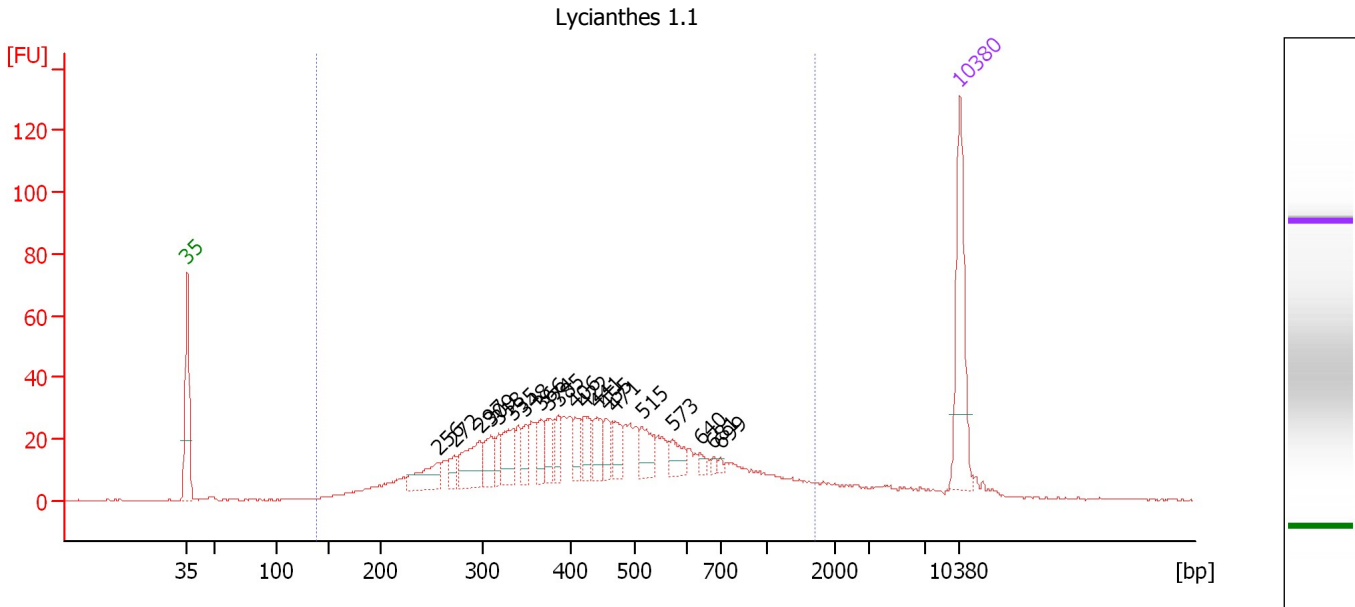
**Peak table for Ladder**

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	45.40
3	100	150.00	2,272.7	Ladder Peak	51.05
4	150	150.00	1,515.2	Ladder Peak	55.85
5	200	150.00	1,136.4	Ladder Peak	60.60
6	300	150.00	757.6	Ladder Peak	69.80
7	400	150.00	568.2	Ladder Peak	77.81
8	500	150.00	454.5	Ladder Peak	83.51
9	600	150.00	378.8	Ladder Peak	88.21
10	700	150.00	324.7	Ladder Peak	91.33
11	1,000	150.00	227.3	Ladder Peak	95.55
12	2,000	150.00	113.6	Ladder Peak	101.64
13	3,000	150.00	75.8	Ladder Peak	104.75
14	7,000	150.00	32.5	Ladder Peak	109.79
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-11-02\2016-11-02\_001.xad

Created: 11/2/2016 10:17:01 AM  
 Modified: 11/2/2016 10:53:05 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : Lycianthes 1.1**

Number of peaks found: 20                      Corr. Area 1: 874.1  
 Noise: 0.2

**Peak table for sample 1 : Lycianthes 1.1**

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	256	39.55	234.0		65.75
3	272	16.25	90.4		67.25
4	297	49.55	252.8		69.52
5	309	28.01	137.3		70.54
6	318	17.08	81.3		71.26
7	335	35.73	161.8		72.57
8	348	18.55	80.7		73.68
9	366	23.47	97.2		75.08
10	374	21.85	88.4		75.75
11	385	20.48	80.5		76.62
12	406	20.60	76.8		78.17
13	422	24.25	87.1		79.04
14	441	25.73	88.4		80.15
15	455	17.39	57.9		80.97
16	471	20.72	66.7		81.84
17	515	25.48	75.0		84.21
18	573	18.32	48.4		86.96
19	640	5.09	12.1		89.47
20	681	3.75	8.4		90.73
21	699	3.08	6.7		91.31
22	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-11-02\2016-11-02\_001.xad

Created: 11/2/2016 10:17:01 AM  
Modified: 11/2/2016 10:53:05 AM

**Electropherogram Summary Continued ...**

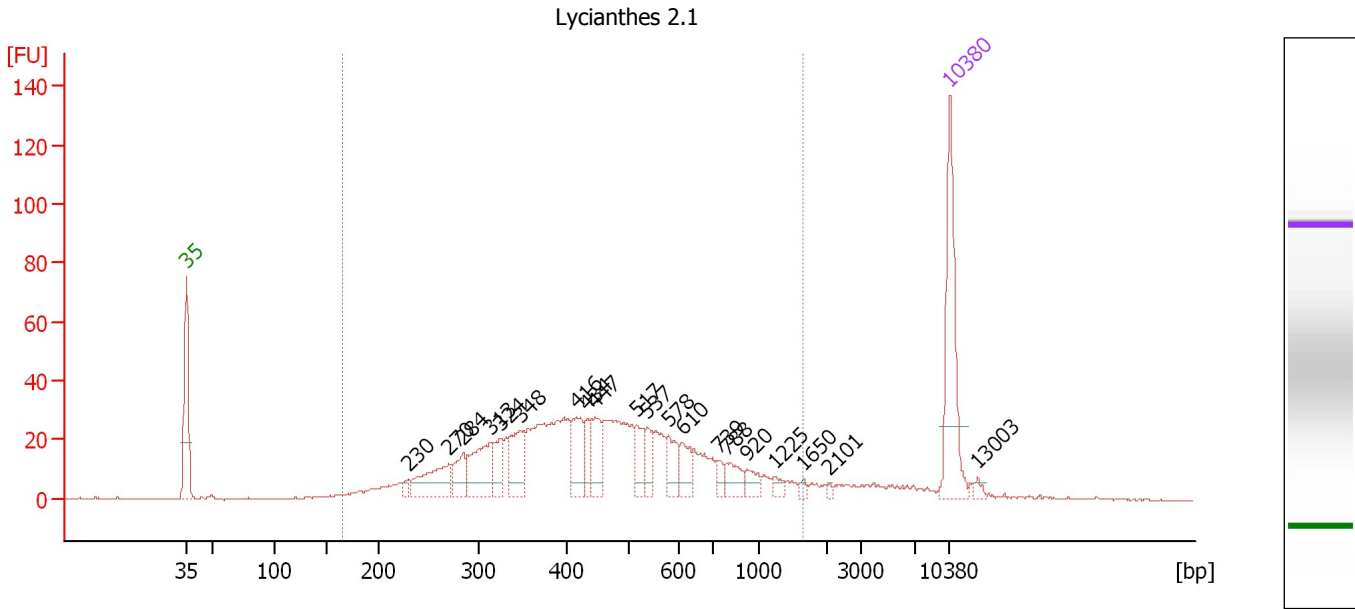
... Region table for sample 1 : Lycianthes 1.1

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
137	1,726	479	874.1	3,948.8	■ 965.08	92	51.6

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-11-02\2016-11-02\_001.xad

Created: 11/2/2016 10:17:01 AM  
 Modified: 11/2/2016 10:53:05 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : Lycianthes 2.1**

Number of peaks found: 20                      Corr. Area 1: 840.1  
 Noise: 0.2

**Peak table for sample 2 : Lycianthes 2.1**

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	230	6.86	45.2		63.34
3	270	52.14	292.5		67.05
4	284	26.41	140.6		68.37
5	313	58.04	280.7		70.86
6	324	24.71	115.5		71.74
7	348	42.60	185.4		73.65
8	416	39.35	143.2		78.73
9	434	20.11	70.2		79.76
10	447	30.85	104.5		80.49
11	517	23.26	68.2		84.31
12	537	15.87	44.8		85.23
13	578	25.03	65.6		87.19
14	610	19.30	48.0		88.51
15	739	8.70	17.8		91.88
16	788	17.73	34.1		92.57
17	920	11.01	18.1		94.42
18	1,225	5.74	7.1		96.92
19	1,650	2.82	2.6		99.51
20	2,101	1.95	1.4		101.95
21	10,380	75.00	10.9	Upper Marker	113.00
22	13,003	0.00	0.0		115.49

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-11-02\2016-11-02\_001.xad

Created: 11/2/2016 10:17:01 AM  
Modified: 11/2/2016 10:53:05 AM

**Electropherogram Summary Continued ...**

... Region table for sample 2 : Lycianthes 2.1

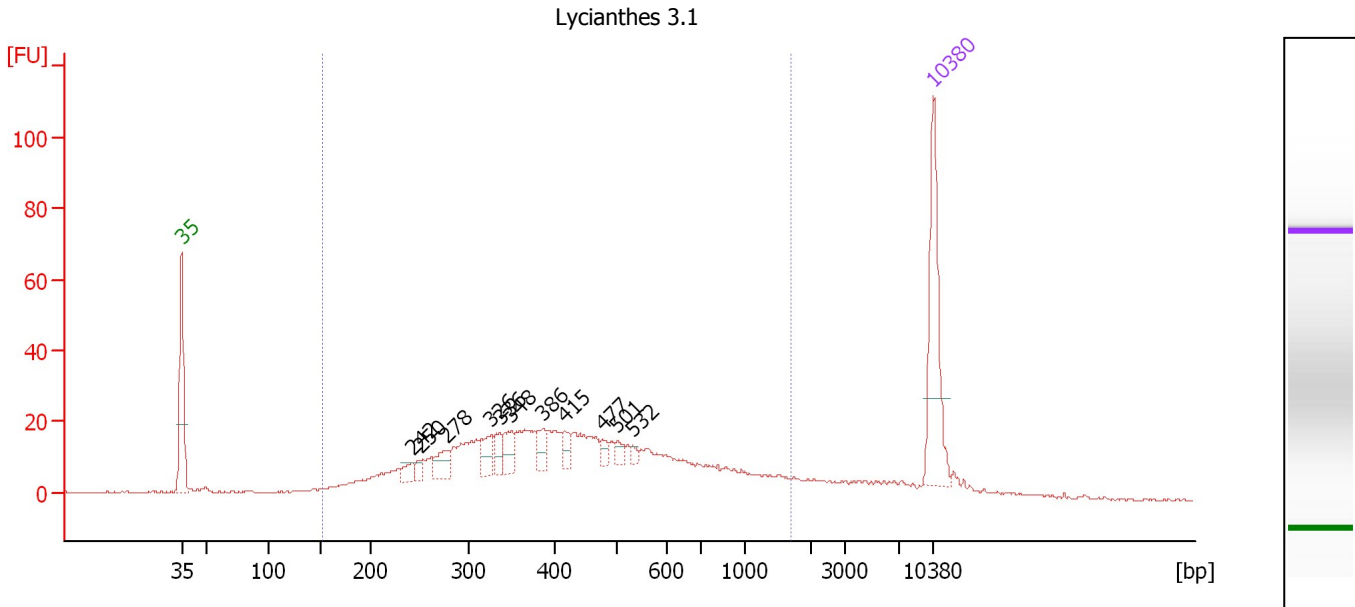
From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
165	1,649	489	840.1	3,178.4	817.72	91	47.4



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-11-02\2016-11-02\_001.xad

Created: 11/2/2016 10:17:01 AM  
 Modified: 11/2/2016 10:53:05 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : Lycianthes 3.1**

Number of peaks found: 11                      Corr. Area 1: 637.0  
 Noise: 0.2

**Peak table for sample 3 : Lycianthes 3.1**

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	242	10.97	68.7		64.46
3	250	9.04	54.8		65.21
4	278	21.45	117.1		67.74
5	326	23.61	109.8		71.86
6	336	14.13	63.8		72.66
7	348	20.46	89.0		73.65
8	386	15.94	62.6		76.68
9	415	11.09	40.5		78.67
10	477	7.16	22.7		82.20
11	501	7.51	22.7		83.54
12	532	4.26	12.1		85.03
13	10,380	75.00	10.9	Upper Marker	113.00

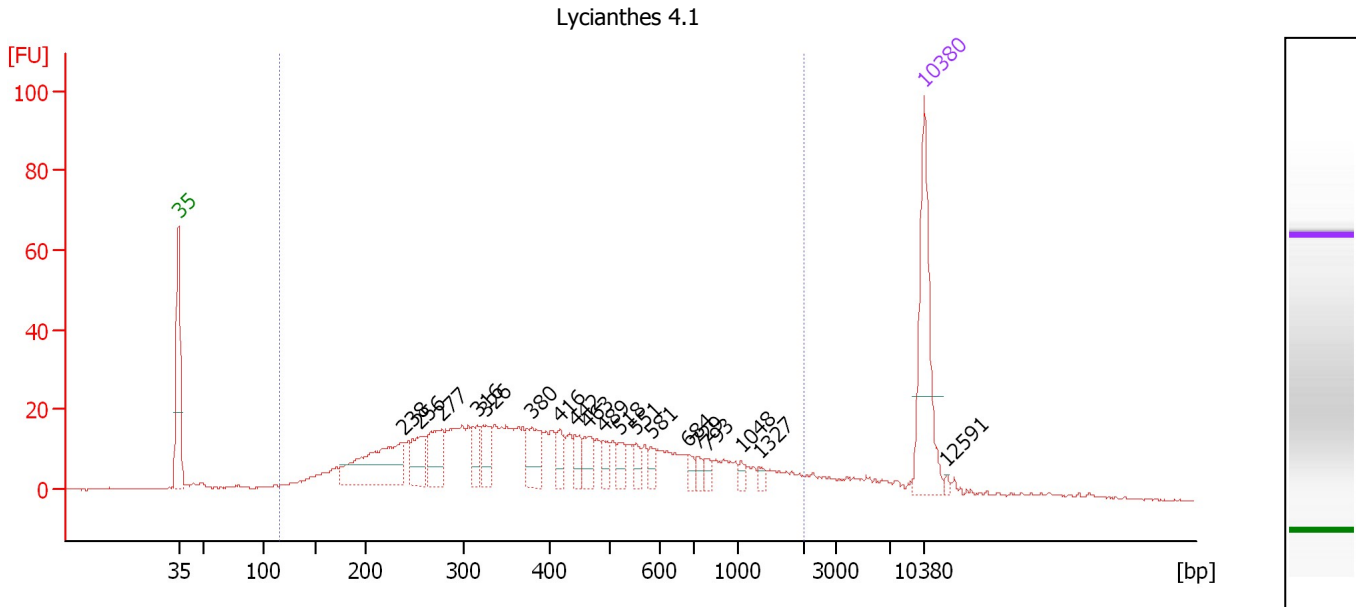
**Region table for sample 3 : Lycianthes 3.1**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
152	1,707	480	637.0	3,129.9	742.54	87	55.3

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-11-02\2016-11-02\_001.xad

Created: 11/2/2016 10:17:01 AM  
 Modified: 11/2/2016 10:53:05 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : Lycianthes 4.1**

Number of peaks found: 19                      Corr. Area 1: 719.1  
 Noise: 0.2

**Peak table for sample 4 : Lycianthes 4.1**

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	238	97.63	622.4		64.07
3	256	35.85	212.5		65.72
4	277	40.11	219.1		67.72
5	316	20.85	100.0		71.07
6	326	24.35	113.2		71.87
7	380	32.55	129.9		76.17
8	416	14.71	53.6		78.73
9	442	15.27	52.3		80.23
10	463	19.14	62.6		81.43
11	489	12.68	39.3		82.88
12	518	13.35	39.0		84.38
13	551	10.11	27.8		85.93
14	581	7.84	20.4		87.33
15	684	7.37	16.3		90.83
16	729	6.46	13.4		91.73
17	793	5.99	11.5		92.64
18	1,048	4.31	6.2		95.84
19	1,327	3.91	4.5		97.54
20	10,380	75.00	10.9	Upper Marker	113.00
21	12,591	0.00	0.0		115.10

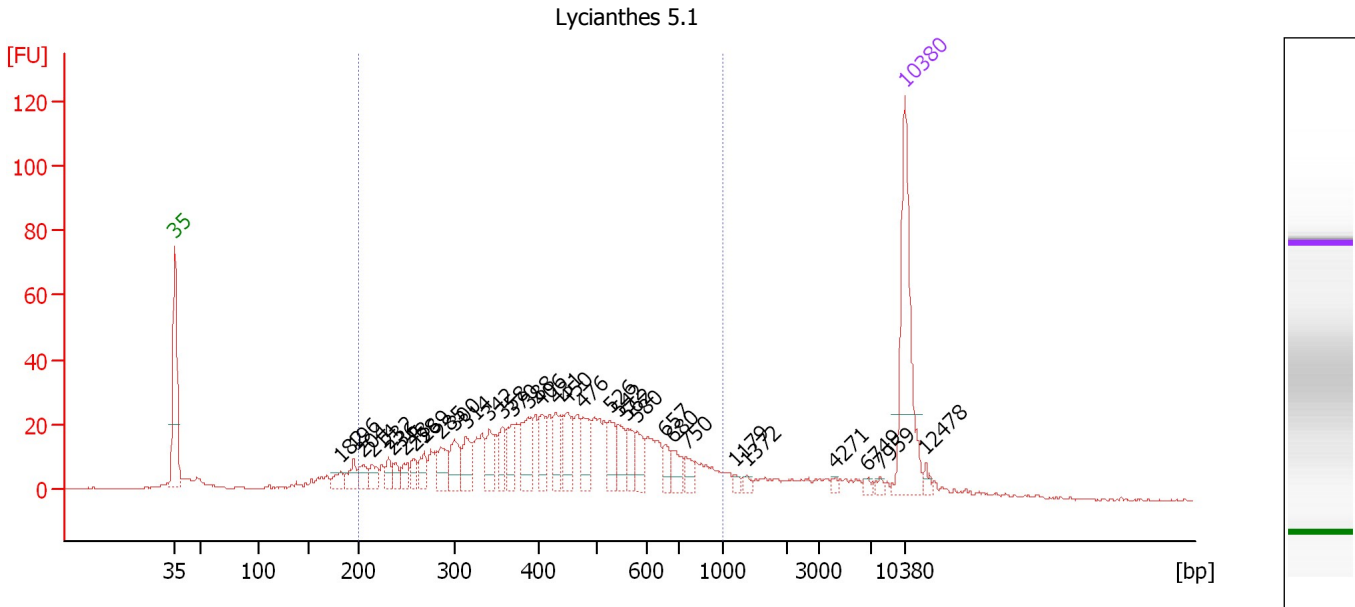
**Region table for sample 4 : Lycianthes 4.1**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
115	2,015	486	719.1	4,028.5	846.73	89	69.3

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-11-02\2016-11-02\_001.xad

Created: 11/2/2016 10:17:01 AM  
 Modified: 11/2/2016 10:53:05 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : Lycianthes 5.1**

Number of peaks found: 33                      Corr. Area 1: 722.4  
 Noise: 0.3

**Peak table for sample 5 : Lycianthes 5.1**

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	182	10.66	88.7		58.90
3	196	15.37	119.0		60.18
4	204	13.15	97.8		60.95
5	214	12.06	85.2		61.92
6	232	9.34	61.1		63.50
7	236	9.02	57.9		63.91
8	248	11.47	70.0		65.04
9	258	10.34	60.8		65.91
10	269	14.46	81.5		66.93
11	285	20.52	109.1		68.41
12	300	25.01	126.3		69.79
13	314	24.02	115.9		70.92
14	342	21.38	94.7		73.17
15	358	17.14	72.5		74.45
16	370	19.11	78.3		75.37
17	388	29.53	115.3		76.85
18	406	19.24	71.7		78.18
19	431	19.25	67.7		79.56
20	450	24.36	82.1		80.63
21	476	22.87	72.7		82.17
22	526	20.38	58.7		84.72
23	542	16.83	47.0		85.49
24	562	13.54	36.5		86.41
25	580	16.64	43.4		87.28

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-11-02\2016-11-02\_001.xad

Created: 11/2/2016 10:17:01 AM  
 Modified: 11/2/2016 10:53:05 AM

### Electropherogram Summary Continued ...

#### ... Peak table for sample 5 : Lycianthes 5.1

Peak	Size [bp]	Conc. [pg/ $\mu$ l]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
26	657	10.60	24.4		89.99
27	680	11.99	26.7		90.71
28	750	9.69	19.6		92.04
29	1,179	2.84	3.7		96.64
30	1,372	3.37	3.7		97.81
31	4,271	2.10	0.7		106.35
32	6,749	2.66	0.6		109.47
33	7,959	2.24	0.4		110.70
34	10,380	75.00	10.9	Upper Marker	113.00
35	12,478	0.00	0.0		114.99

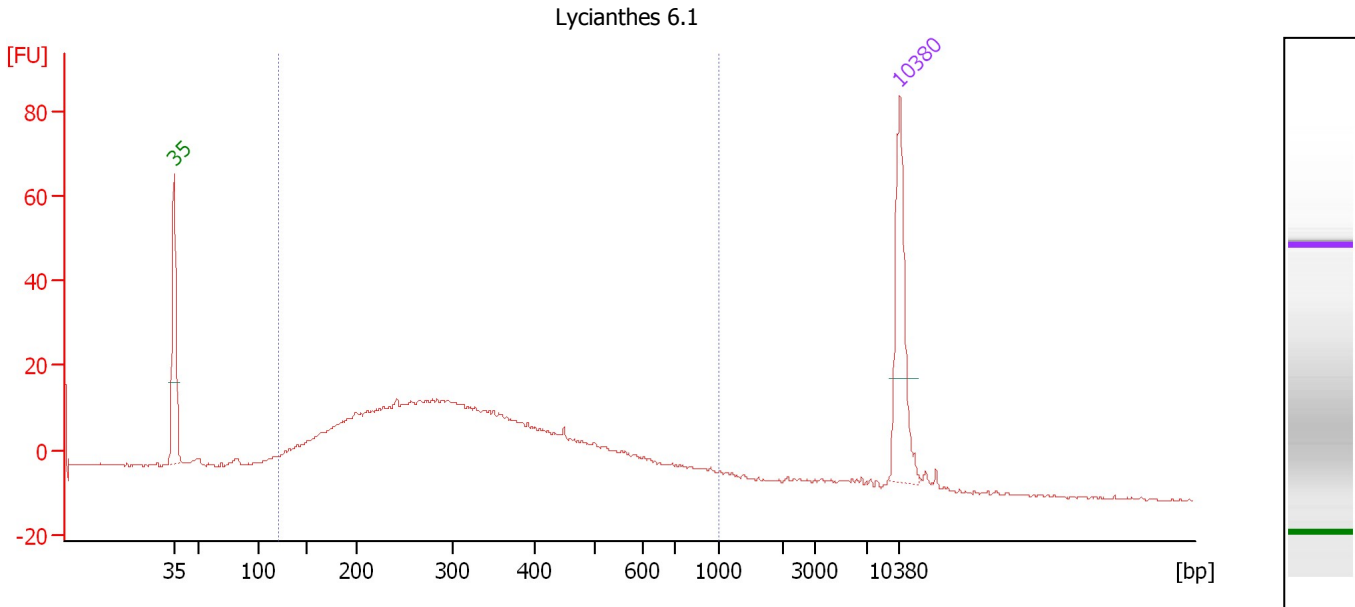
#### Region table for sample 5 : Lycianthes 5.1

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/ $\mu$ l]	% of Total	Size distribution in CV [%]
200	1,000	454	722.4	2,685.7	679.11	79	35.1

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-11-02\2016-11-02\_001.xad

Created: 11/2/2016 10:17:01 AM  
 Modified: 11/2/2016 10:53:05 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : Lycianthes 6.1**

Number of peaks found: 0                      Corr. Area 1: 660.7  
 Noise: 0.2

**Peak table for sample 6 : Lycianthes 6.1**

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	10,380	75.00	10.9	Upper Marker	113.00

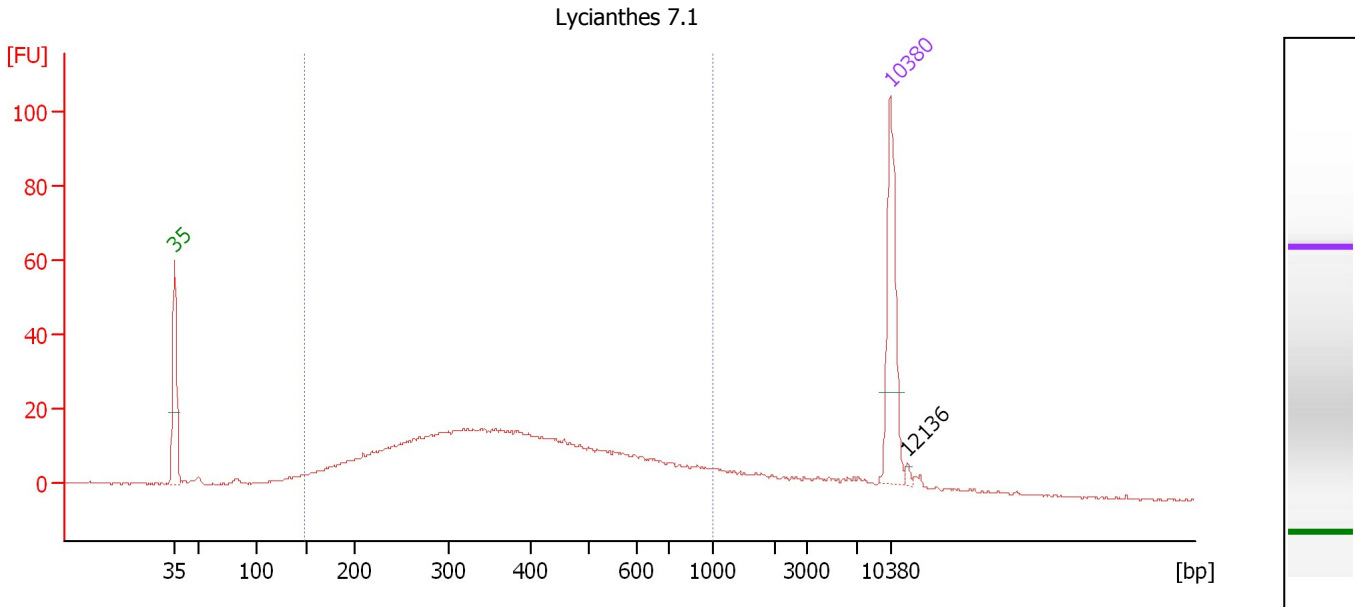
**Region table for sample 6 : Lycianthes 6.1**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
121	1,000	345	660.7	5,257.5	923.28	89	45.3

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-11-02\2016-11-02\_001.xad

Created: 11/2/2016 10:17:01 AM  
 Modified: 11/2/2016 10:53:05 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : Lycianthes 7.1**

Number of peaks found: 1                      Corr. Area 1: 581.8  
 Noise: 0.3

**Peak table for sample 7 : Lycianthes 7.1**

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	10,380	75.00	10.9	Upper Marker	113.00
3	12,136	0.00	0.0		114.67

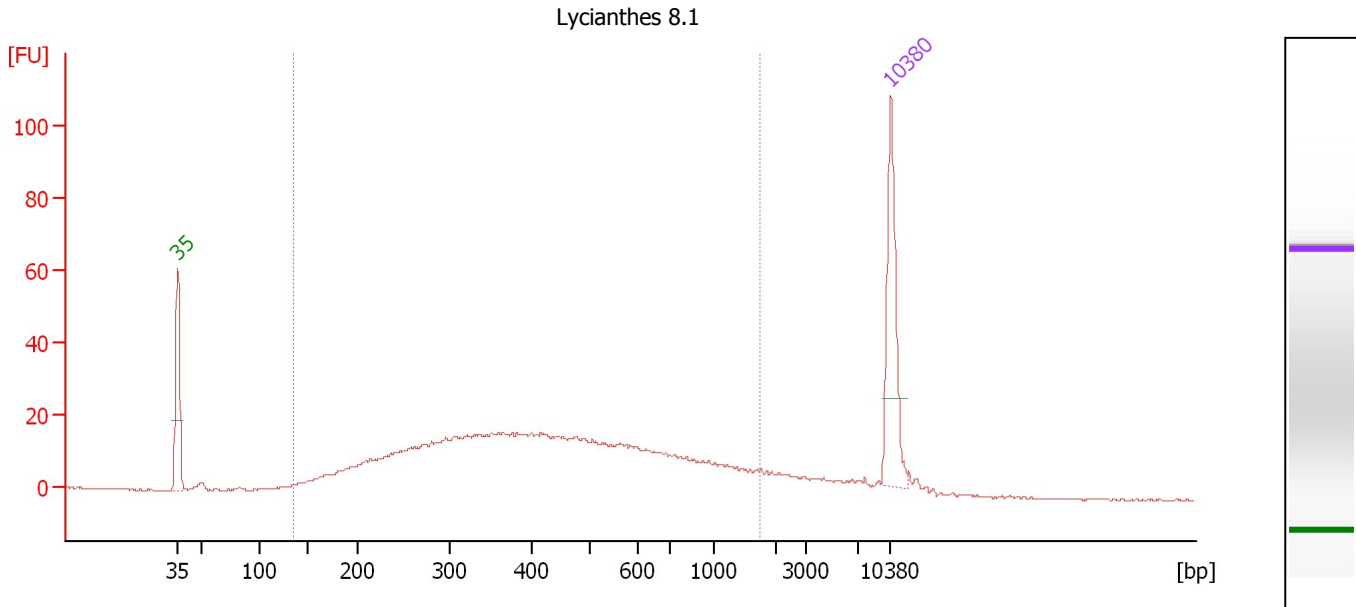
**Region table for sample 7 : Lycianthes 7.1**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
149	1,000	406	581.8	3,465.6	732.84	82	42.4

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-11-02\2016-11-02\_001.xad

Created: 11/2/2016 10:17:01 AM  
Modified: 11/2/2016 10:53:05 AM

Electropherogram Summary Continued ...



Overall Results for sample 8 : Lycianthes 8.1

Number of peaks found: 0                      Corr. Area 1: 661.8  
Noise: 0.2

Peak table for sample 8 : Lycianthes 8.1

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	10,380	75.00	10.9	Upper Marker	113.00

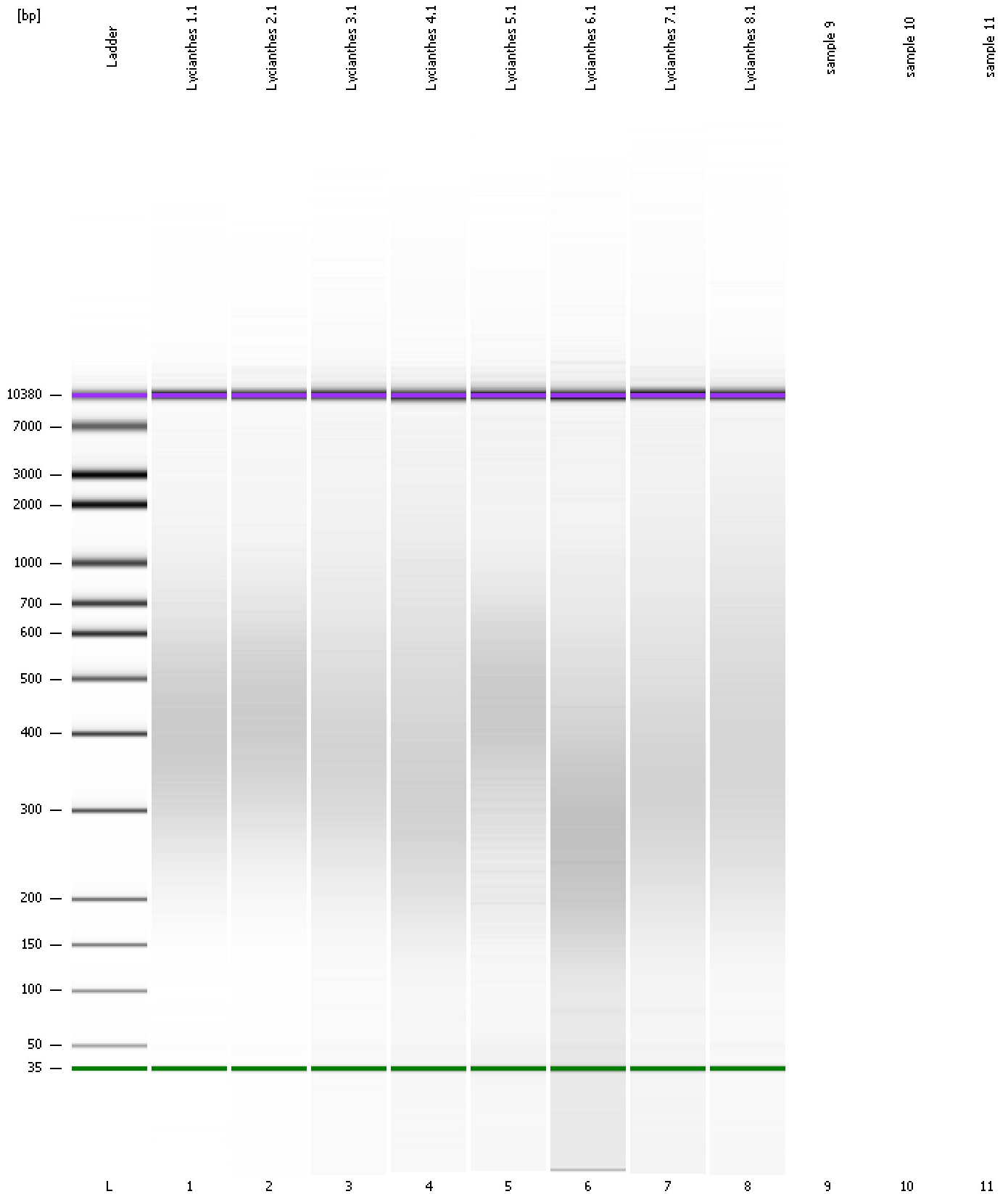
Region table for sample 8 : Lycianthes 8.1

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/µl]	% of Total	Size distribution in CV [%]
134	1,763	493	661.8	3,445.9	779.48	90	60.4

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-11-02\2016-11-02\_001.xad

Created: 11/2/2016 10:17:01 AM  
Modified: 11/2/2016 10:53:05 AM

**Gel Image**





Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-11-02\2016-11-02\_001.xad

Created: 11/2/2016 10:17:01 AM  
Modified: 11/2/2016 10:53:05 AM

**Invalid Samples**

Sample 9 has not been run, no results available.

Sample 10 has not been run, no results available.

Sample 11 has not been run, no results available.

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-11-02\2016-11-02\_001.xad

Created: 11/2/2016 10:17:01 AM  
 Modified: 11/2/2016 10:53:05 AM

**Run Logbook**

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 9)		Instrument	Run		11/2/2016 10:49:44 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\data\2016-11-02\2016-11-02_001.xad)		Instrument	Run		11/2/2016 10:17:07 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		11/2/2016 10:17:07 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		11/2/2016 10:17:07 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		11/2/2016 10:17:07 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		11/2/2016 10:17:07 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		11/2/2016 10:17:07 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		11/2/2016 10:17:07 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1