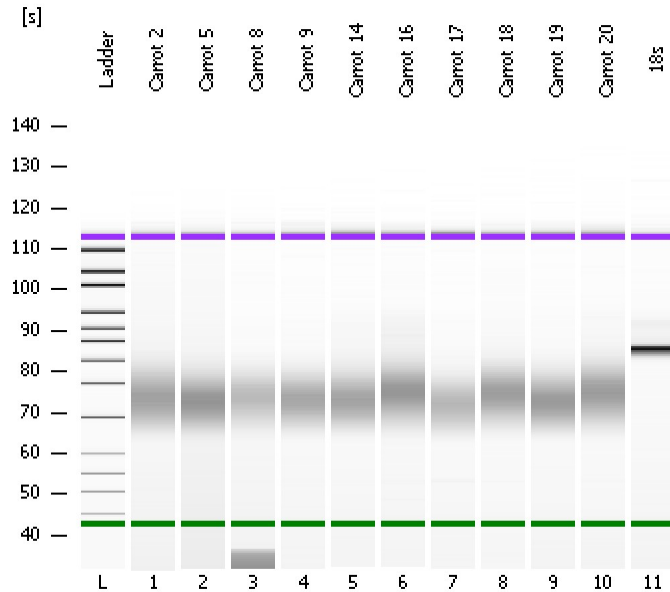


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-06-03\2013-06-03\_002.xad

Created: 6/3/2013 2:15:39 PM  
Modified: 6/3/2013 3:07:15 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

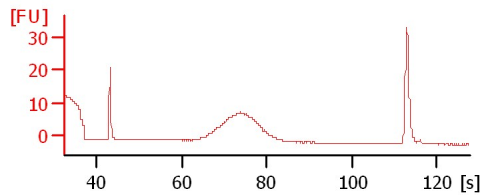
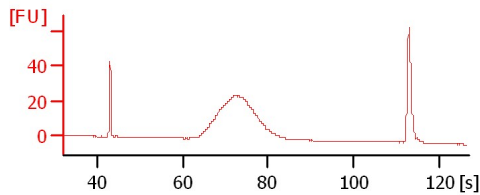
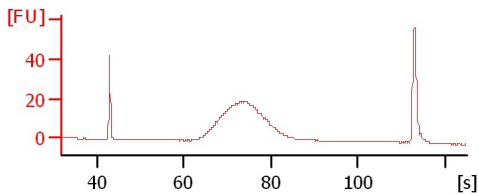
Chip Information:

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

**Carrot 2**

**Carrot 5**

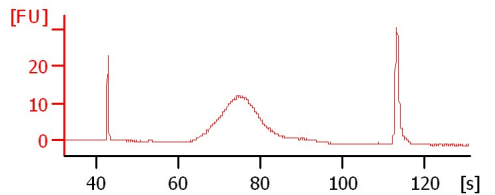
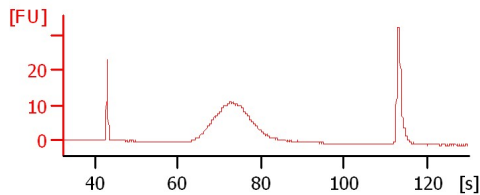
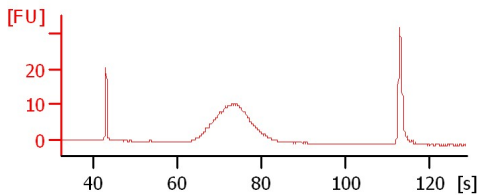
**Carrot 8**



**Carrot 9**

**Carrot 14**

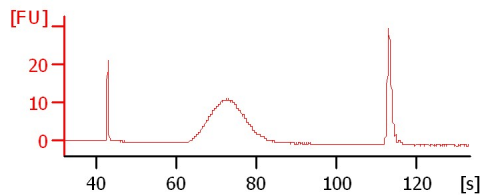
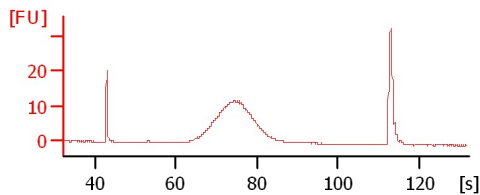
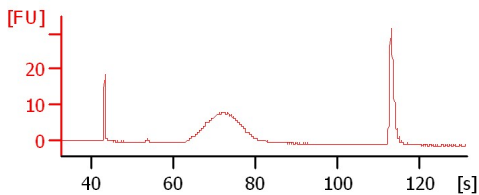
**Carrot 16**



**Carrot 17**

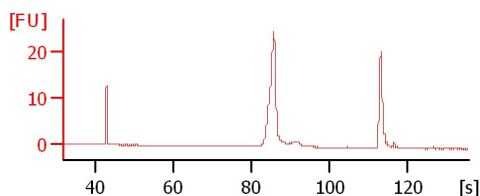
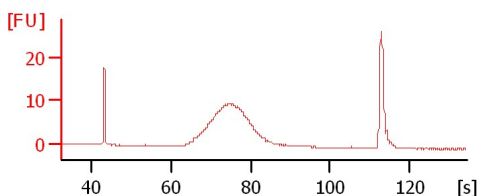
**Carrot 18**

**Carrot 19**



**Carrot 20**

**18s**



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-06-03\2013-06-03\_002.xad

Created: 6/3/2013 2:15:39 PM  
Modified: 6/3/2013 3:07:15 PM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
Carrot 2		<input type="checkbox"/>	✓			
Carrot 5		<input type="checkbox"/>	✓			
Carrot 8		<input type="checkbox"/>	✓			
Carrot 9		<input type="checkbox"/>	✓			
Carrot 14		<input type="checkbox"/>	✓			
Carrot 16		<input type="checkbox"/>	✓			
Carrot 17		<input type="checkbox"/>	✓			
Carrot 18		<input type="checkbox"/>	✓			
Carrot 19		<input type="checkbox"/>	✓			
Carrot 20		<input type="checkbox"/>	✓			
18s		<input type="checkbox"/>	✓			
Ladder		<input type="checkbox"/>	✓			

**Chip Lot #**

**Reagent Kit Lot #**

**Chip Comments :**

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-06-03\2013-06-03\_002.xad

Created: 6/3/2013 2:15:39 PM  
Modified: 6/3/2013 3:07:15 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

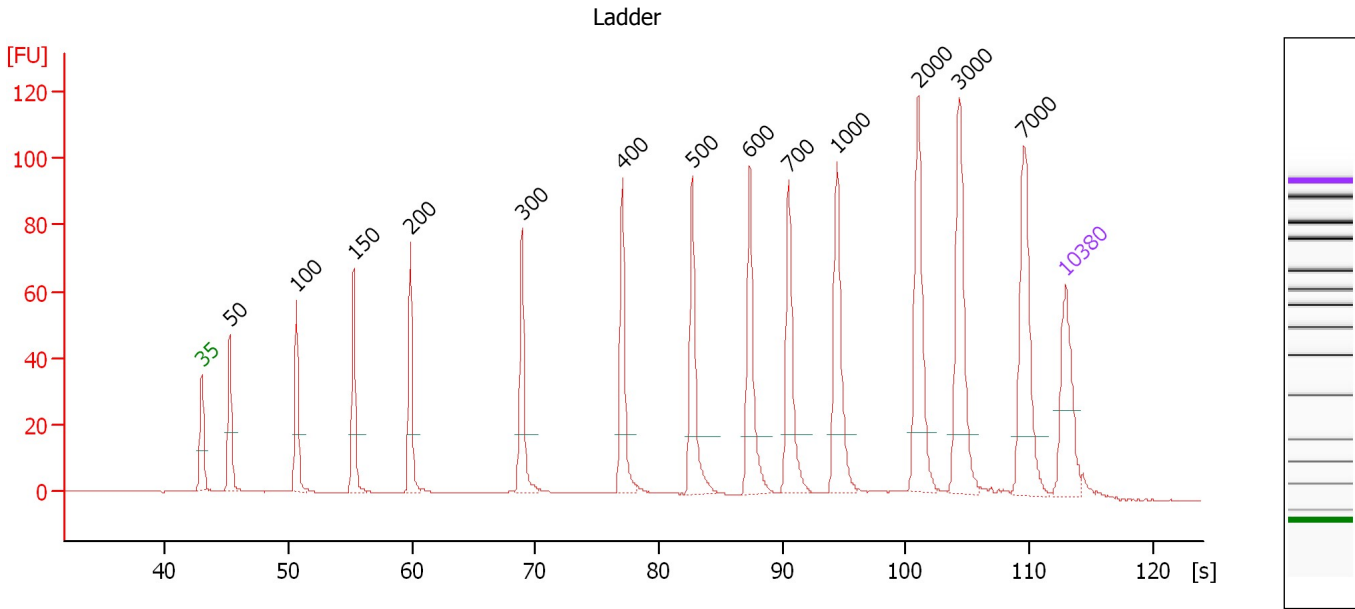
**Ladder**

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:\...ents and Settings\Bioanalyzer\2013-06-03\2013-06-03\_002.xad

Created: 6/3/2013 2:15:39 PM  
 Modified: 6/3/2013 3:07:15 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.1

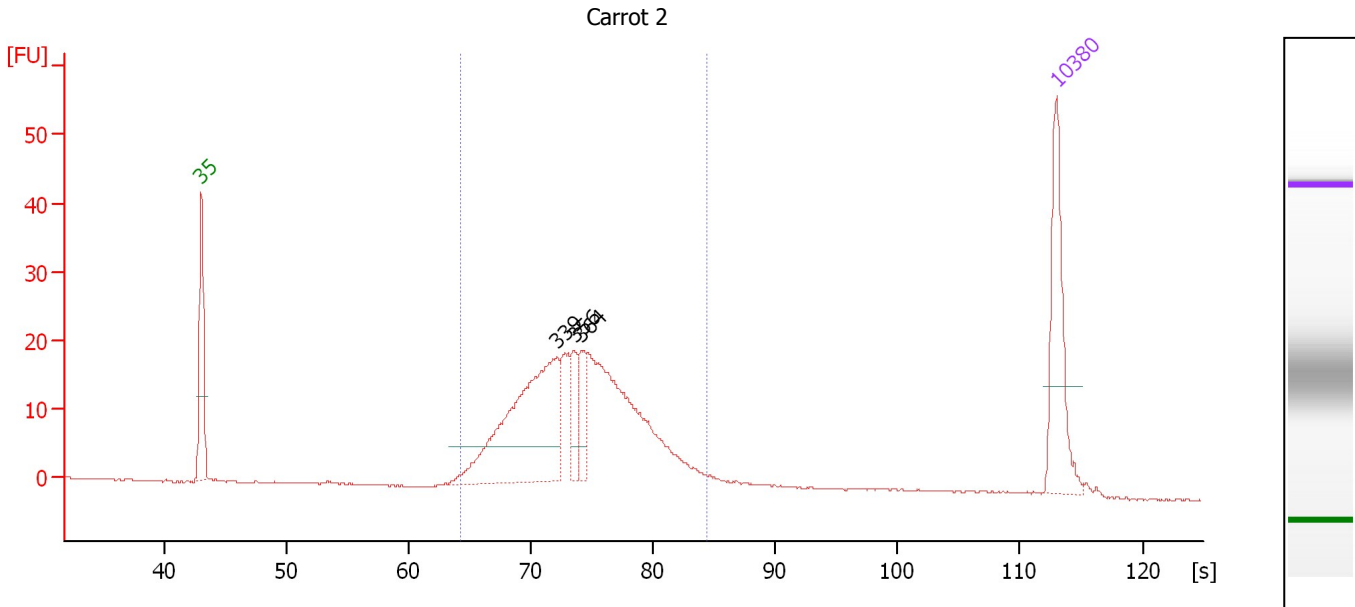
**Peak table for Ladder**

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:\...ents and Settings\Bioanalyzer\2013-06-03\2013-06-03\_002.xad

Created: 6/3/2013 2:15:39 PM  
 Modified: 6/3/2013 3:07:15 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : Carrot 2**

Number of peaks found: 3                      Corr. Area 1: 330.6  
 Noise: 0.1

**Peak table for sample 1 : Carrot 2**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	339	243.12	1,085.4	
3	356	29.59	125.9	
4	364	33.54	139.7	
5	10,380	75.00	10.9	Upper Marker

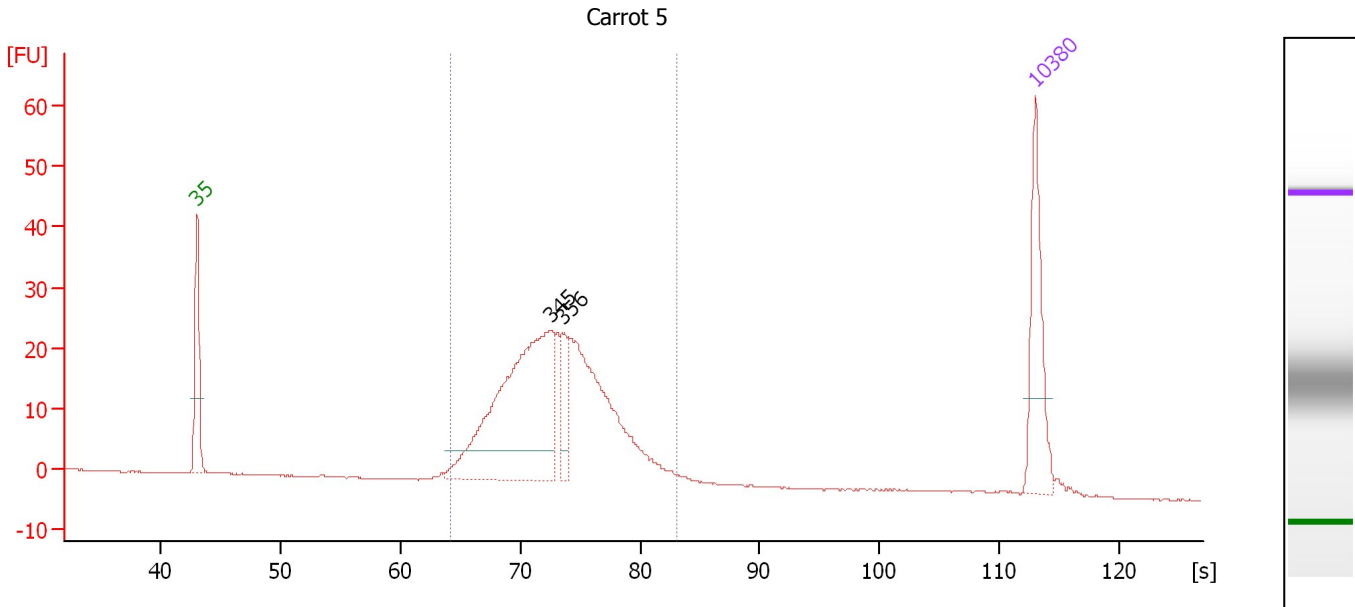
**Region table for sample 1 : Carrot 2**

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color
64.28	84.42	364	2,759.3	641.27	330.6 91	16.1	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-06-03\2013-06-03\_002.xad

Created: 6/3/2013 2:15:39 PM  
 Modified: 6/3/2013 3:07:15 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : Carrot 5**

Number of peaks found: 2                      Corr. Area 1: 371.4  
 Noise: 0.1

**Peak table for sample 2 : Carrot 5**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	345	349.14	1,533.0	
3	356	39.73	169.1	
4	10,380	75.00	10.9	Upper Marker

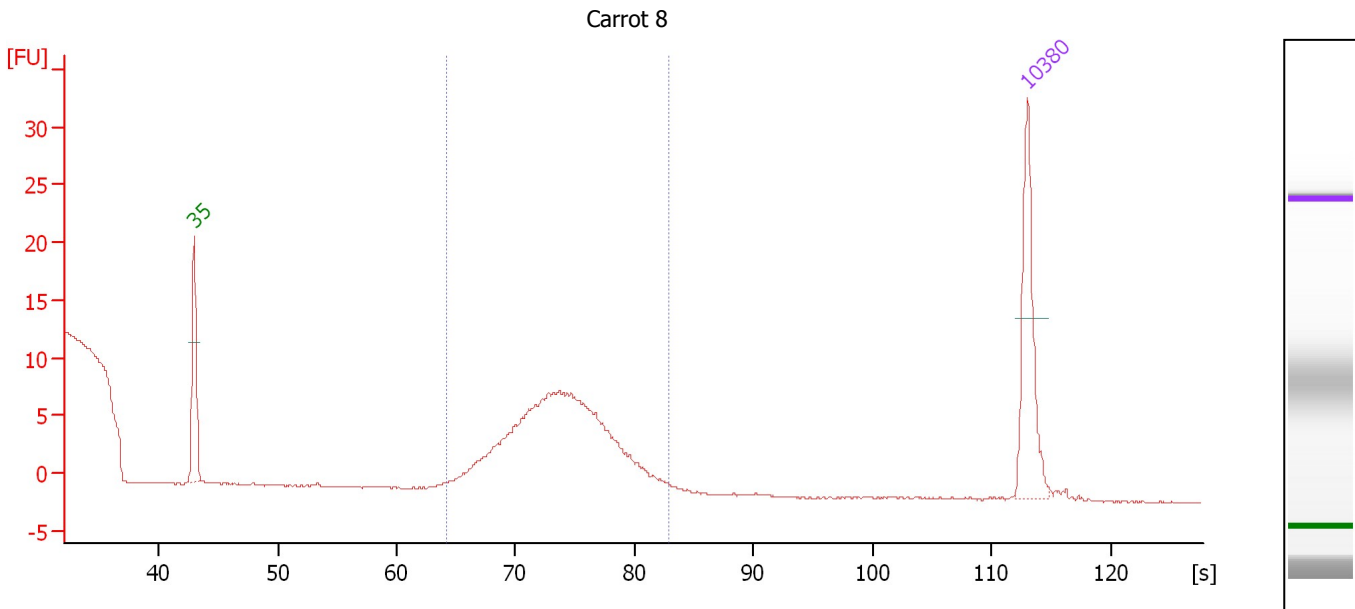
**Region table for sample 2 : Carrot 5**

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color
64.15	83.08	351	3,095.6	699.32	371.4 95	14.5	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-06-03\2013-06-03\_002.xad

Created: 6/3/2013 2:15:39 PM  
 Modified: 6/3/2013 3:07:15 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : Carrot 8**

Number of peaks found: 0                      Corr. Area 1: 121.2  
 Noise: 0.1

**Peak table for sample 3 : Carrot 8**

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

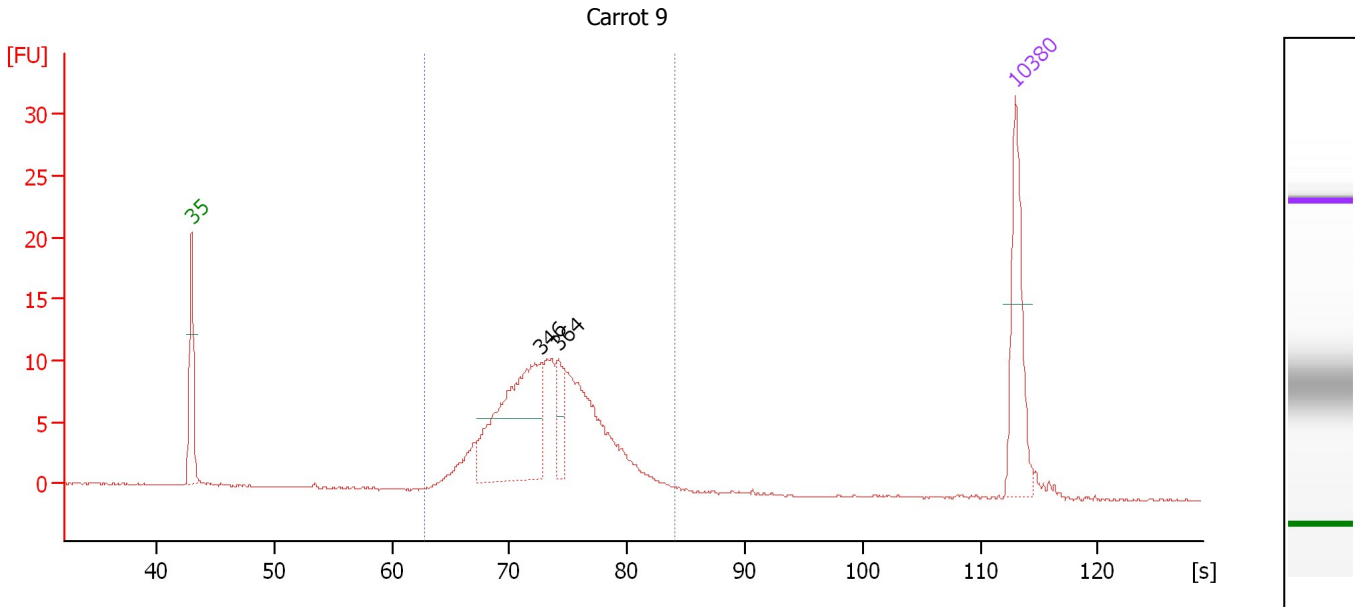
**Region table for sample 3 : Carrot 8**

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
64.28	82.87	361	1,793.2	416.10	121.2	96	14.0	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-06-03\2013-06-03\_002.xad

Created: 6/3/2013 2:15:39 PM  
 Modified: 6/3/2013 3:07:15 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : Carrot 9**

Number of peaks found: 2                      Corr. Area 1: 154.3  
 Noise: 0.1

**Peak table for sample 4 : Carrot 9**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	346	203.46	889.9	
3	364	38.23	159.0	
4	10,380	75.00	10.9	Upper Marker

**Region table for sample 4 : Carrot 9**

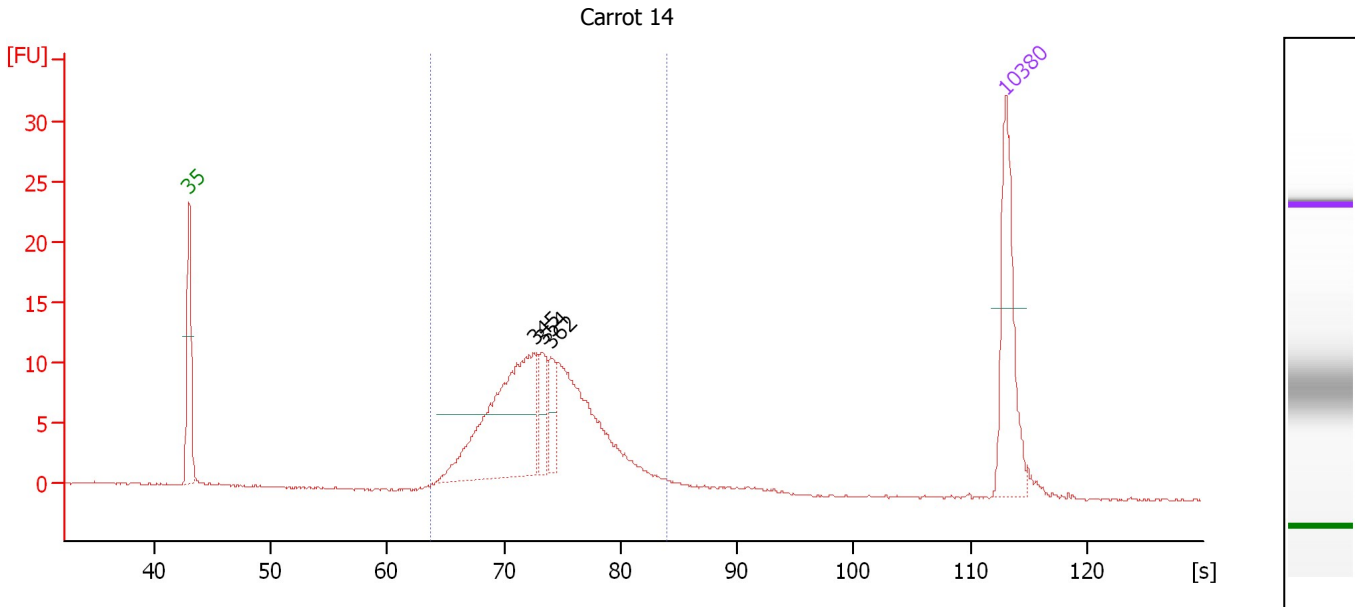
From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color
62.87	84.01	356	2,463.8	563.24	154.3 97	14.6	Blue



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-06-03\2013-06-03\_002.xad

Created: 6/3/2013 2:15:39 PM  
 Modified: 6/3/2013 3:07:15 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : Carrot 14**

Number of peaks found: 3                      Corr. Area 1: 167.3  
 Noise: 0.1

**Peak table for sample 5 : Carrot 14**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	345	206.44	905.9	
3	354	29.72	127.3	
4	362	24.14	101.0	
5	10,380	75.00	10.9	Upper Marker

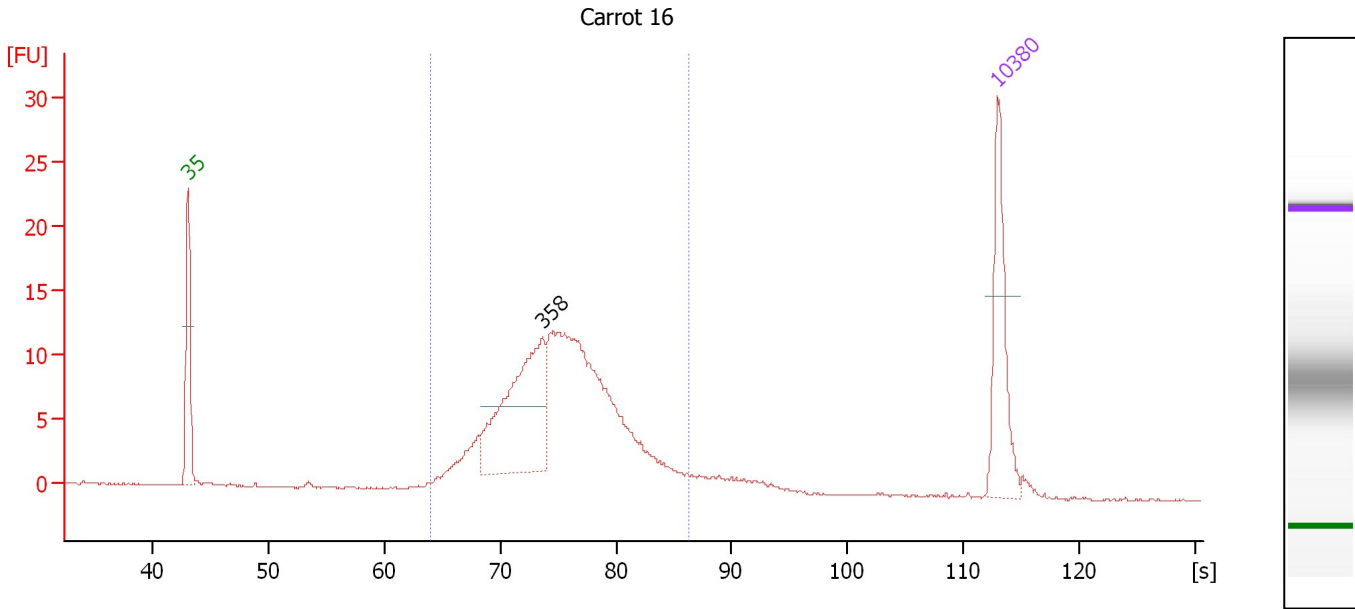
**Region table for sample 5 : Carrot 14**

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color
63.76	83.91	358	2,254.1	517.80	167.3 95	15.0	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-06-03\2013-06-03\_002.xad

Created: 6/3/2013 2:15:39 PM  
 Modified: 6/3/2013 3:07:15 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : Carrot 16**

Number of peaks found: 1                      Corr. Area 1: 189.7  
 Noise: 0.1

**Peak table for sample 6 : Carrot 16**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	358	192.86	816.5	
3	10,380	75.00	10.9	Upper Marker

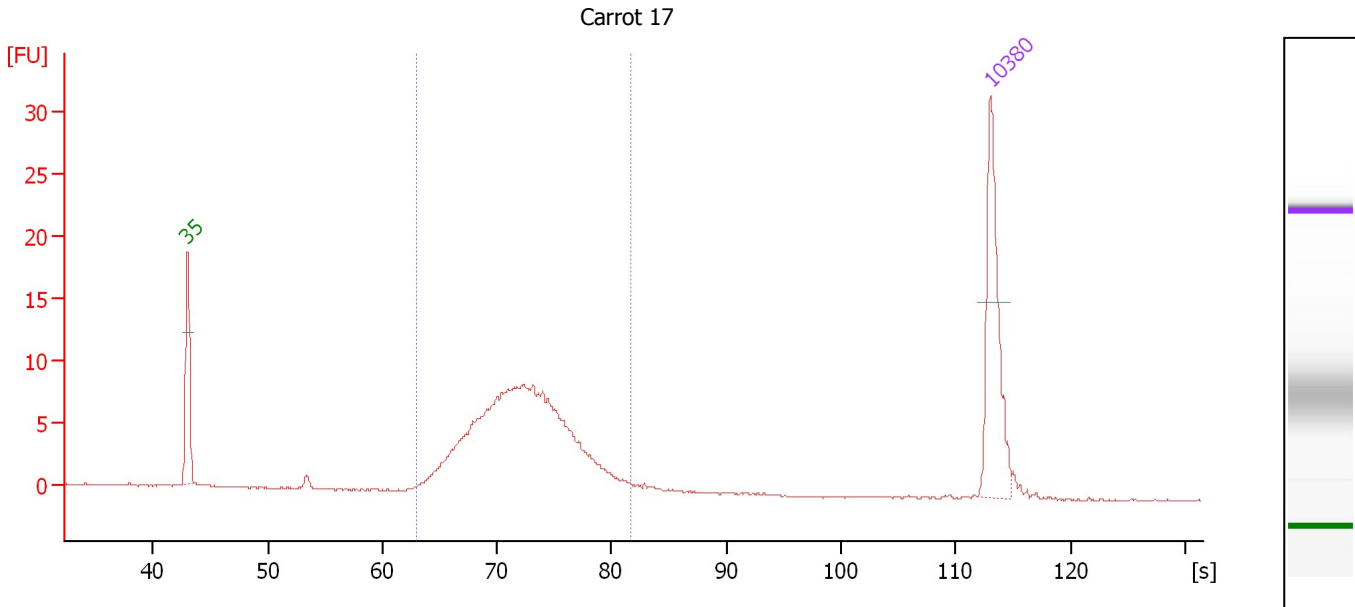
**Region table for sample 6 : Carrot 16**

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
64.01	86.24	382	2,748.2	667.84	189.7	93	16.7	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-06-03\2013-06-03\_002.xad

Created: 6/3/2013 2:15:39 PM  
 Modified: 6/3/2013 3:07:15 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : Carrot 17**

Number of peaks found: 0                      Corr. Area 1: 121.2  
 Noise: 0.1

**Peak table for sample 7 : Carrot 17**

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

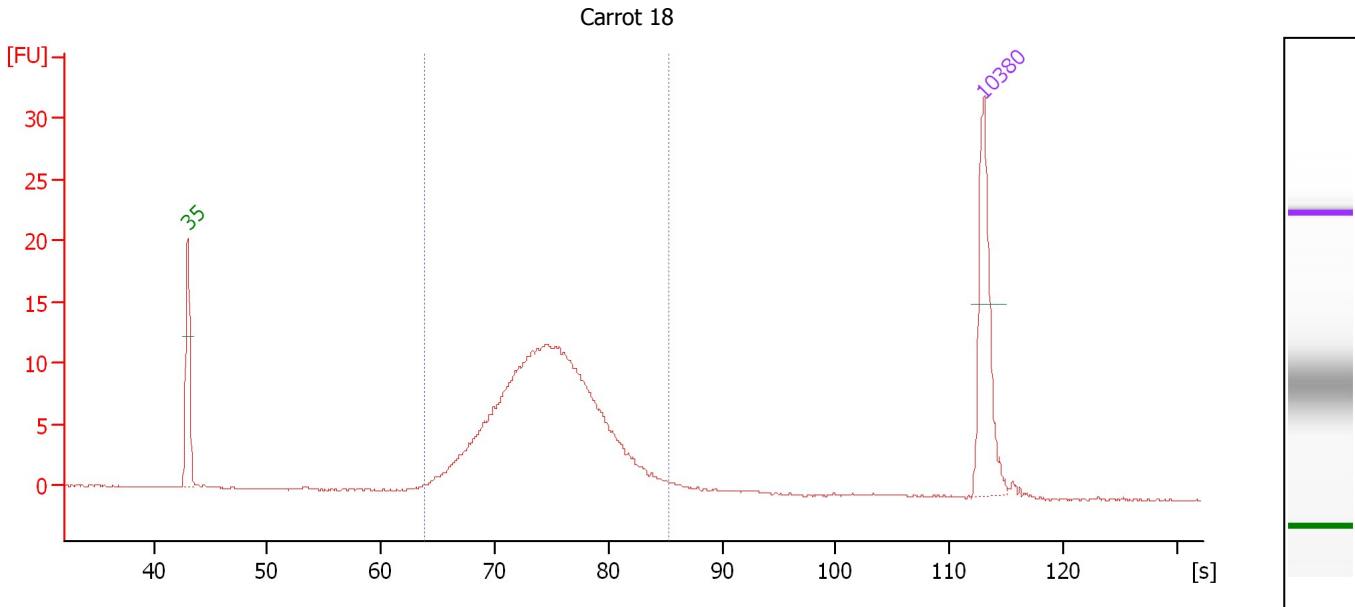
**Region table for sample 7 : Carrot 17**

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
63.04	81.60	341	1,855.0	406.96	121.2	95	14.0	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-06-03\2013-06-03\_002.xad

Created: 6/3/2013 2:15:39 PM  
 Modified: 6/3/2013 3:07:15 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : Carrot 18**

Number of peaks found: 0                      Corr. Area 1: 178.4  
 Noise: 0.1

**Peak table for sample 8 : Carrot 18**

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

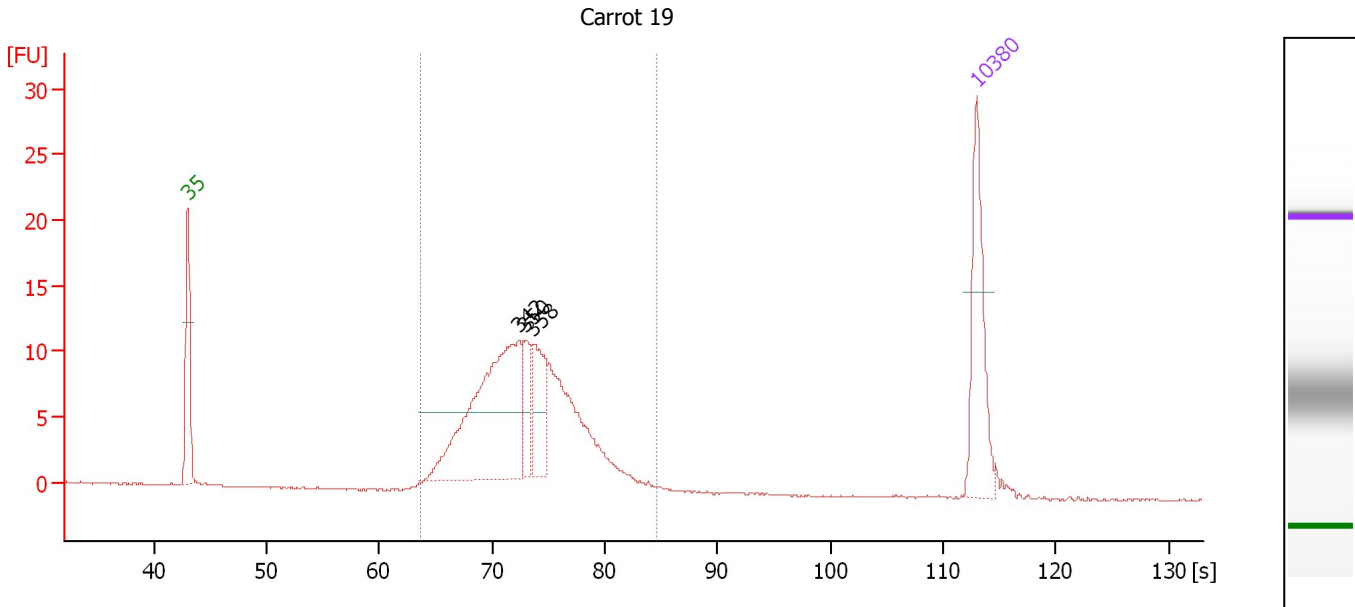
**Region table for sample 8 : Carrot 18**

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
63.91	85.32	374	2,526.0	604.16	178.4	95	15.6	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-06-03\2013-06-03\_002.xad

Created: 6/3/2013 2:15:39 PM  
 Modified: 6/3/2013 3:07:15 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : Carrot 19**

Number of peaks found: 3                      Corr. Area 1: 166.7  
 Noise: 0.1

**Peak table for sample 9 : Carrot 19**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	342	254.81	1,128.6	
3	350	32.26	139.8	
4	358	62.94	266.5	
5	10,380	75.00	10.9	Upper Marker

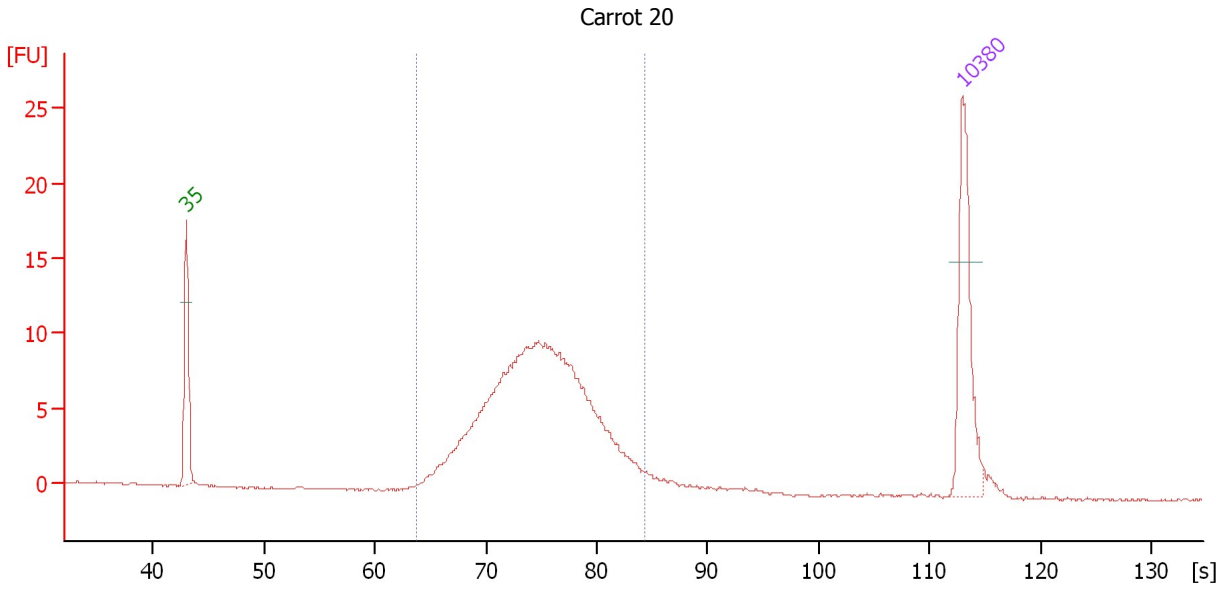
**Region table for sample 9 : Carrot 19**

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
63.59	84.69	353	2,666.2	603.17	166.7	97	15.1	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-06-03\2013-06-03\_002.xad

Created: 6/3/2013 2:15:39 PM  
 Modified: 6/3/2013 3:07:15 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : Carrot 20**

Number of peaks found: 0                      Corr. Area 1: 148.8  
 Noise: 0.1

**Peak table for sample 10 : Carrot 20**

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

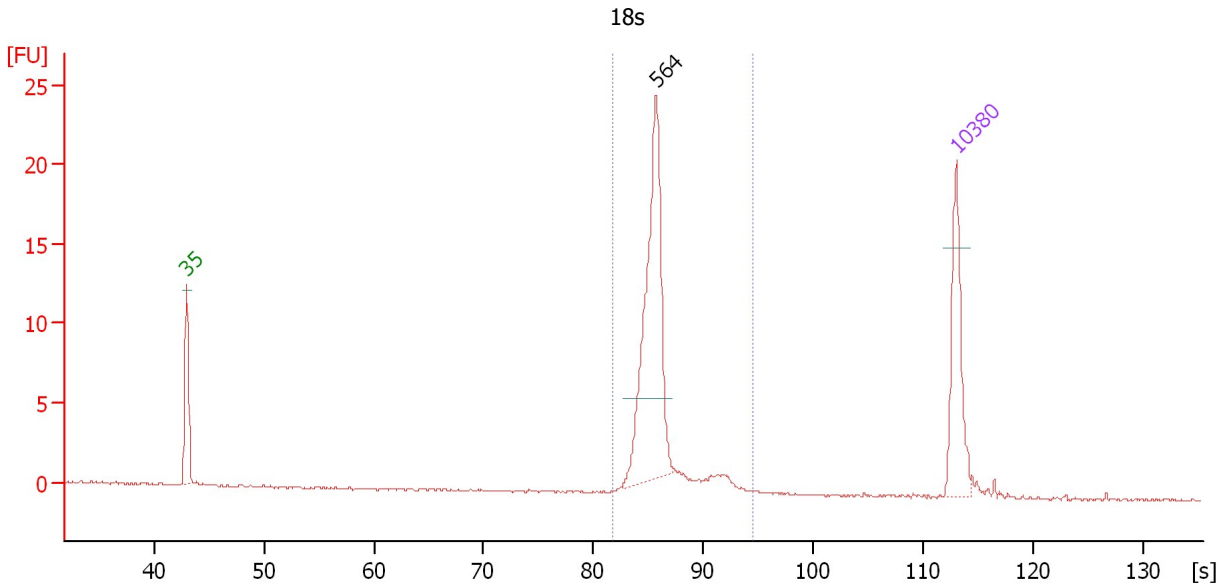
**Region table for sample 10 : Carrot 20**

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
63.81	84.25	375	2,388.8	573.43	148.8	95	15.5	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-06-03\2013-06-03\_002.xad

Created: 6/3/2013 2:15:39 PM  
 Modified: 6/3/2013 3:07:15 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : 18s**

Number of peaks found: 1                      Corr. Area 1: 56.7  
 Noise: 0.1

**Peak table for sample 11 : 18s**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	564	250.99	674.4	
3	10,380	75.00	10.9	Upper Marker

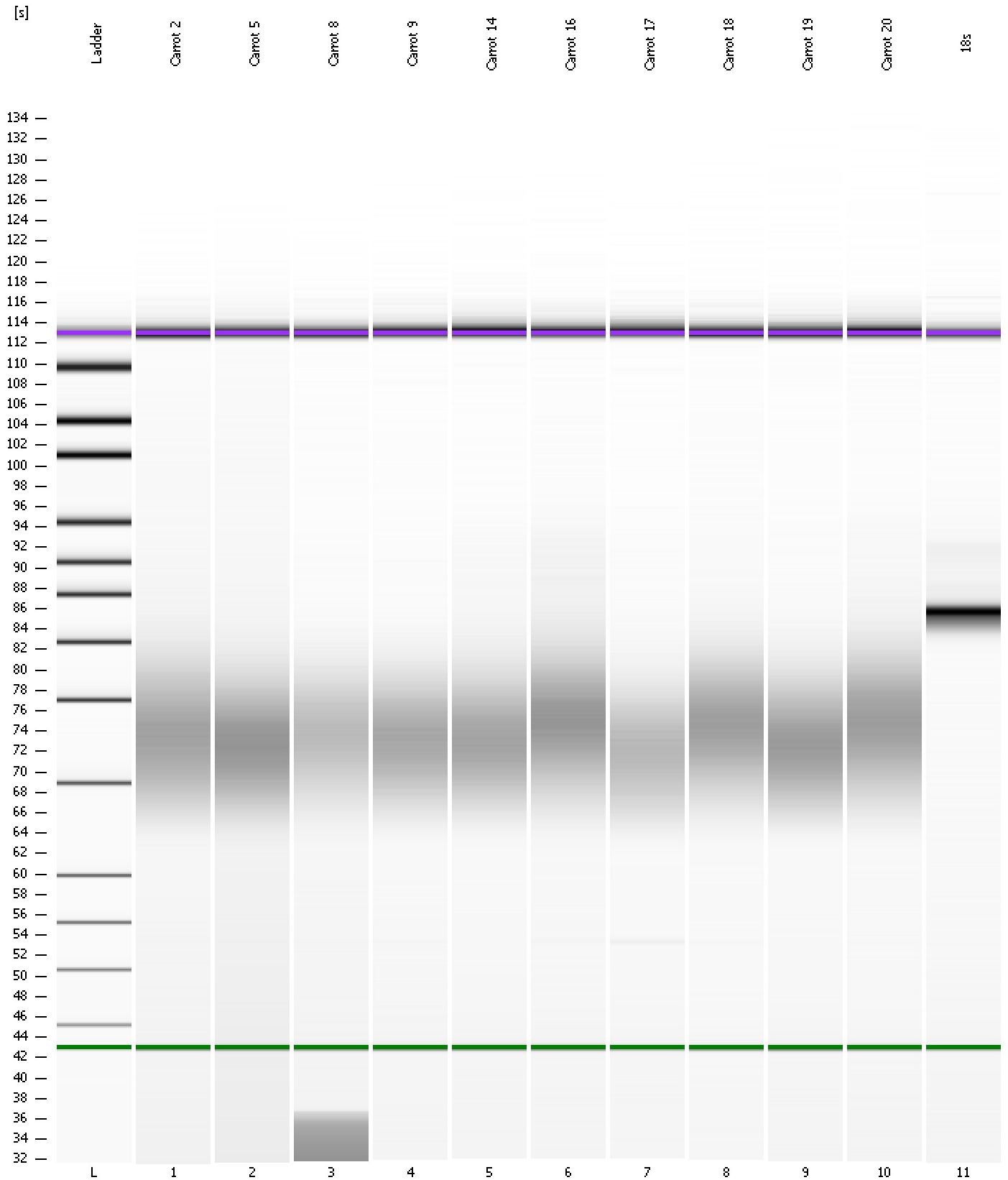
**Region table for sample 11 : 18s**

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color	
81.81	94.47	575	822.5	308.77	56.7	96	11.2	Blue

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-06-03\2013-06-03\_002.xad

Created: 6/3/2013 2:15:39 PM  
Modified: 6/3/2013 3:07:15 PM

**Gel Image**





Assay Class: High Sensitivity DNA Assay Created: 6/3/2013 2:15:39 PM  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-06-03\2013-06-03\_002.xad Modified: 6/3/2013 3:07:15 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		6/3/2013 2:56:56 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2013-06-03\2013-06-03_002.xad)		Instrument	Run		6/3/2013 2:15:44 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		6/3/2013 2:15:44 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		6/3/2013 2:15:44 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		6/3/2013 2:15:44 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		6/3/2013 2:15:44 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		6/3/2013 2:15:44 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		6/3/2013 2:15:44 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1