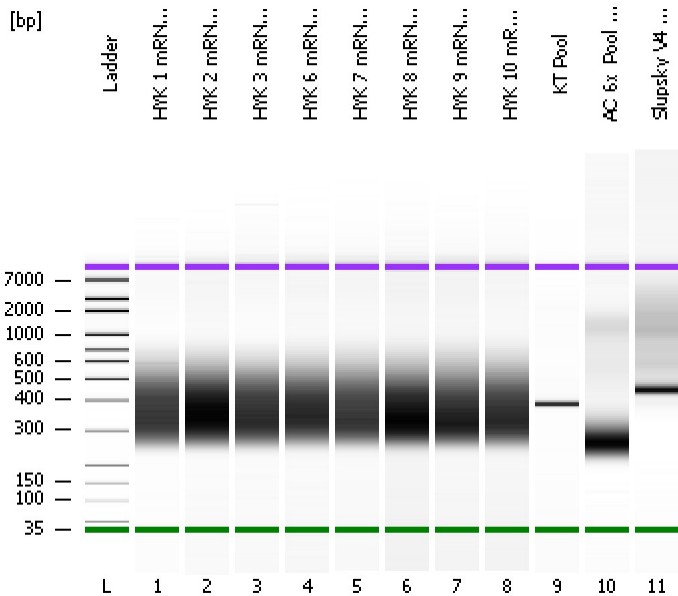


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-23\2013-08-23\_002.xad

Created: 8/23/2013 4:31:29 PM  
Modified: 8/23/2013 5:13:39 PM

### Electrophoresis File Run Summary



#### Instrument Information:

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

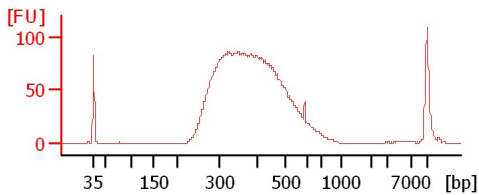
#### Assay Information:

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

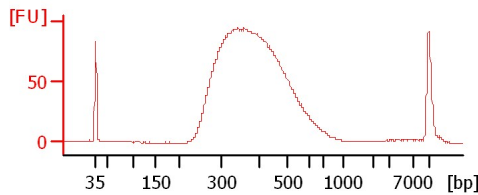
#### Chip Information:

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

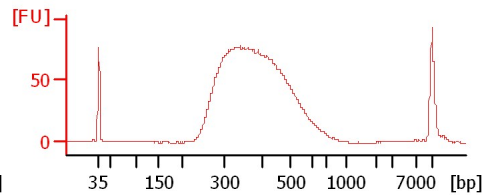
HYK 1 mRNA Lib 1:8



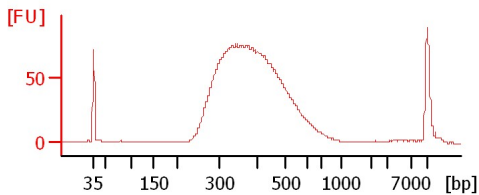
HYK 2 mRNA Lib 1:10



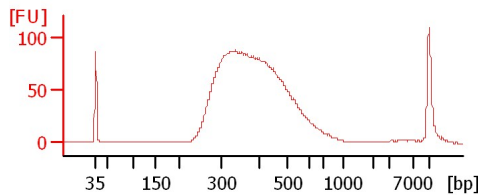
HYK 3 mRNA Lib 1:8



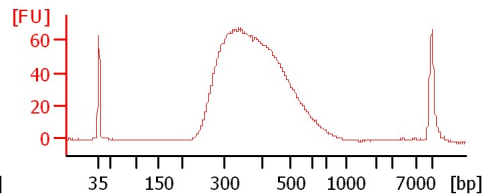
HYK 6 mRNA Lib 1:10



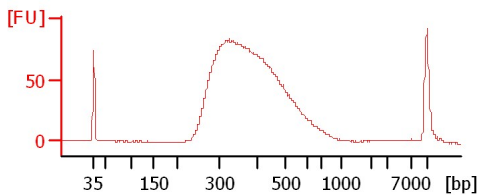
HYK 7 mRNA Lib 1:11



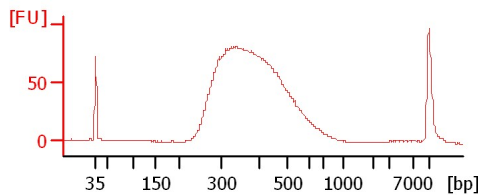
HYK 8 mRNA Lib 1:12



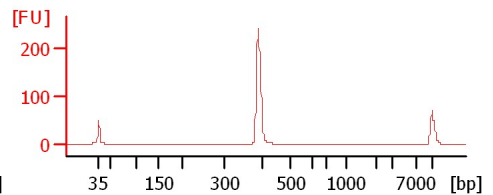
HYK 9 mRNA Lib 1:11



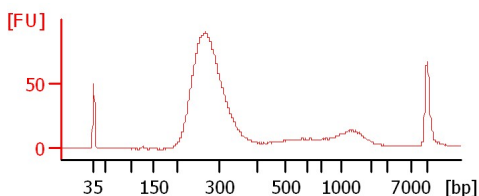
HYK 10 mRNA Lib 1:9



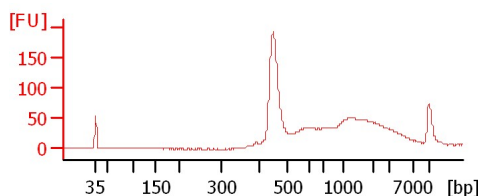
KT Pool



AC\_6x\_Pool 1:20



Slupsky V4 1:60



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-23\2013-08-23\_002.xad

Created: 8/23/2013 4:31:29 PM  
Modified: 8/23/2013 5:13:39 PM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
HYK 1 mRNA Lib 1:8		<input type="checkbox"/>	✓			
HYK 2 mRNA Lib 1:10		<input type="checkbox"/>	✓			
HYK 3 mRNA Lib 1:8		<input type="checkbox"/>	✓			
HYK 6 mRNA Lib 1:10		<input type="checkbox"/>	✓			
HYK 7 mRNA Lib 1:11		<input type="checkbox"/>	✓			
HYK 8 mRNA Lib 1:12		<input type="checkbox"/>	✓			
HYK 9 mRNA Lib 1:11		<input type="checkbox"/>	✓			
HYK 10 mRNA Lib 1:9		<input type="checkbox"/>	✓			
KT Pool		<input type="checkbox"/>	✓			
AC_6x_Pool 1:20		<input type="checkbox"/>	✓			
Slupsky V4 1:60		<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\2013-08-23\2013-08-23\_002.xad

Created: 8/23/2013 4:31:29 PM  
Modified: 8/23/2013 5:13:39 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

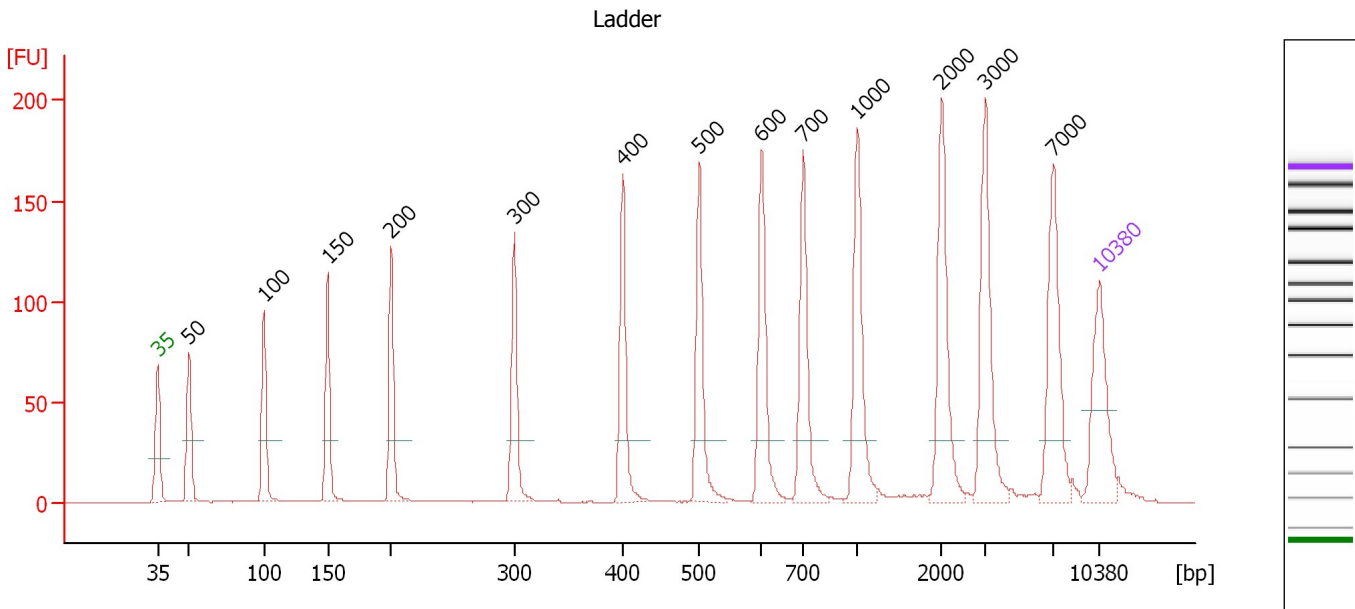
**Ladder**

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\2013-08-23\2013-08-23\_002.xad

Created: 8/23/2013 4:31:29 PM  
 Modified: 8/23/2013 5:13:39 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.1

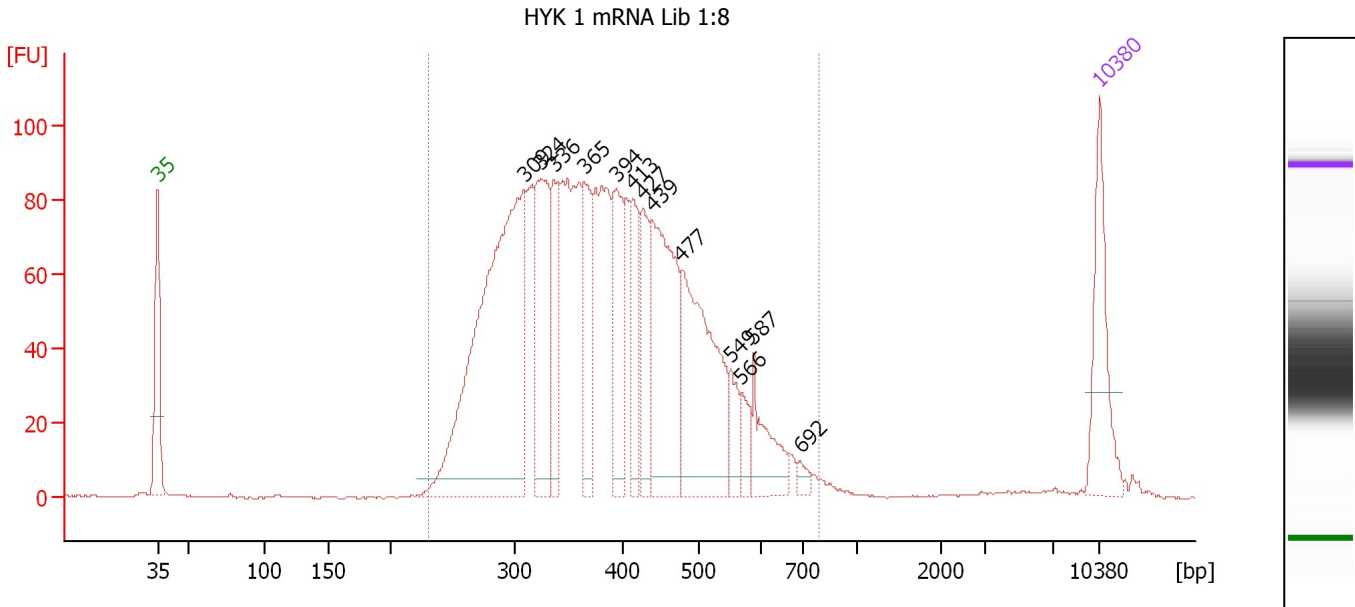
**Peak table for Ladder**

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\2013-08-23\2013-08-23\_002.xad

Created: 8/23/2013 4:31:29 PM  
 Modified: 8/23/2013 5:13:39 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : HYK 1 mRNA Lib 1:8**

Number of peaks found: 13      Corr. Area 1: 2,079.3  
 Noise: 0.2

**Peak table for sample 1 : HYK 1 mRNA Lib 1:8**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	309	561.07	2,753.8	
3	324	164.90	770.5	
4	336	89.44	402.8	
5	365	88.83	369.0	
6	394	102.63	394.5	
7	413	76.48	280.6	
8	427	77.97	276.8	
9	439	212.44	733.2	
10	477	221.56	704.5	
11	549	31.16	86.0	
12	566	23.00	61.5	
13	587	58.04	149.7	
14	692	9.25	20.2	
15	10,380	75.00	10.9	Upper Marker

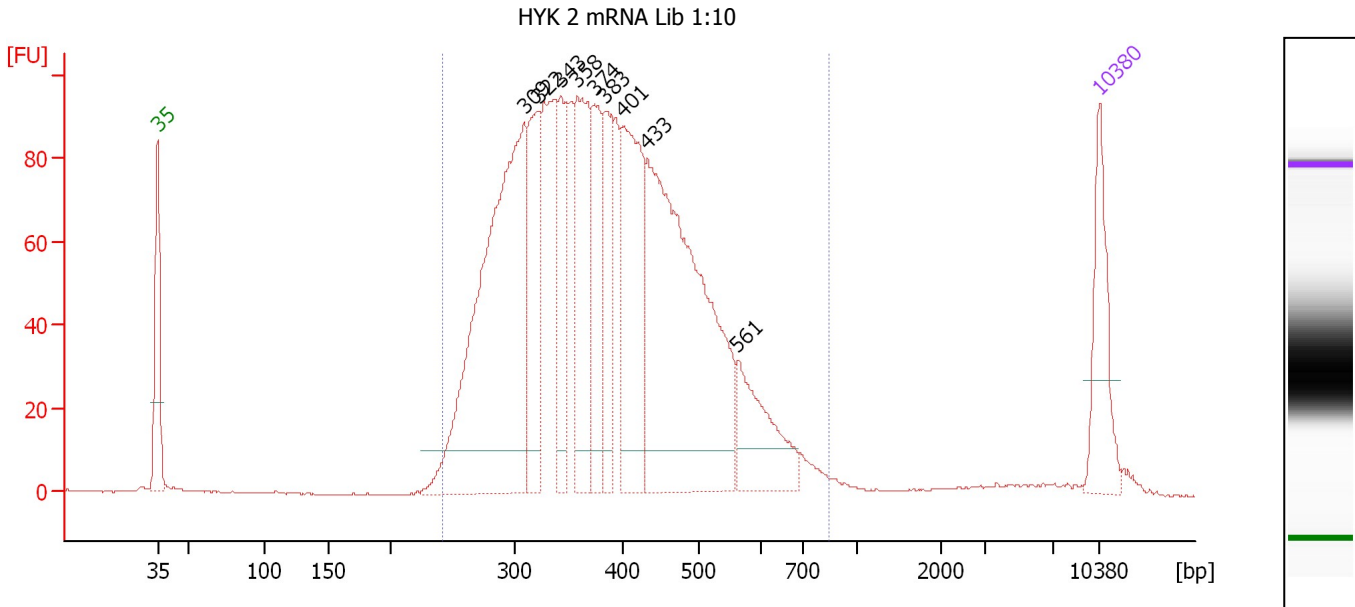
**Region table for sample 1 : HYK 1 mRNA Lib 1:8**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
231	782	393	9,697.9	2,328.10	2,079.3	98	24.4	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-23\2013-08-23\_002.xad

Created: 8/23/2013 4:31:29 PM  
 Modified: 8/23/2013 5:13:39 PM

**Electropherogram Summary Continued ...**



**Setpoint Deviations for sample 2 : HYK 2 mRNA Lib 1:10**

Height Threshold [FU] : 10

**Overall Results for sample 2 : HYK 2 mRNA Lib 1:10**

Number of peaks found: 9                      Corr. Area 1: 2,210.7  
 Noise: 0.1

**Peak table for sample 2 : HYK 2 mRNA Lib 1:10**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	309	603.15	2,959.2	
3	322	153.84	723.3	
4	343	116.08	513.2	
5	358	181.16	765.8	
6	374	119.22	482.7	
7	383	95.92	379.5	
8	401	229.51	867.9	
9	433	536.13	1,877.0	
10	561	107.49	290.3	
11	10,380	75.00	10.9	Upper Marker

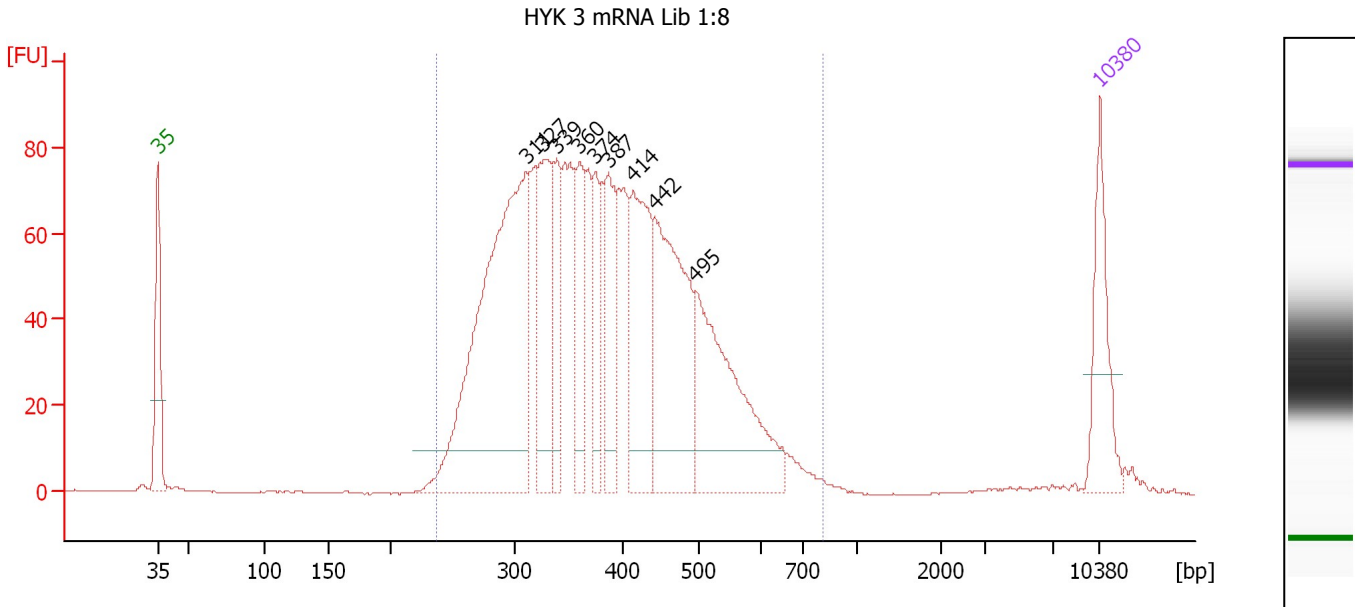
**Region table for sample 2 : HYK 2 mRNA Lib 1:10**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
241	841	395	10,536.6	2,542.54	2,210.7	96	24.6	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-23\2013-08-23\_002.xad

Created: 8/23/2013 4:31:29 PM  
 Modified: 8/23/2013 5:13:39 PM

**Electropherogram Summary Continued ...**



**Setpoint Deviations for sample 3 : HYK 3 mRNA Lib 1:8**

Height Threshold [FU] : 10

**Overall Results for sample 3 : HYK 3 mRNA Lib 1:8**

Number of peaks found: 9                      Corr. Area 1: 1,820.6  
 Noise: 0.2

**Peak table for sample 3 : HYK 3 mRNA Lib 1:8**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	311	572.29	2,788.8	
3	327	163.83	759.3	
4	339	86.05	384.8	
5	360	93.65	394.7	
6	374	75.88	307.2	
7	387	111.51	436.8	
8	414	185.12	677.6	
9	442	259.75	889.7	
10	495	253.03	774.5	
11	10,380	75.00	10.9	Upper Marker

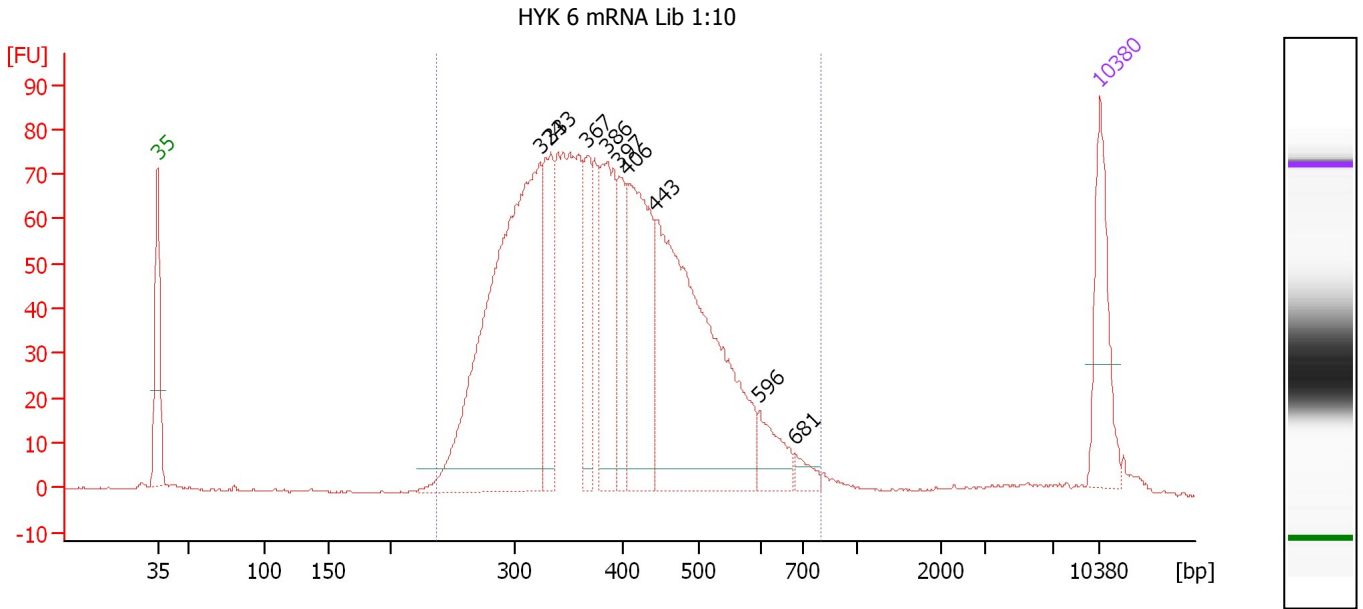
**Region table for sample 3 : HYK 3 mRNA Lib 1:8**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
236	810	392	9,549.9	2,291.37	1,820.6	97	24.1	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-23\2013-08-23\_002.xad

Created: 8/23/2013 4:31:29 PM  
 Modified: 8/23/2013 5:13:39 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : HYK 6 mRNA Lib 1:10**

Number of peaks found: 9                      Corr. Area 1: 1,705.7  
 Noise: 0.2

**Peak table for sample 4 : HYK 6 mRNA Lib 1:10**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	324	615.28	2,873.5	
3	333	126.99	576.9	
4	367	80.45	331.8	
5	386	155.47	610.1	
6	397	70.58	269.4	
7	406	217.16	810.5	
8	443	454.40	1,555.5	
9	596	42.52	108.1	
10	681	14.03	31.2	
11	10,380	75.00	10.9	Upper Marker

**Region table for sample 4 : HYK 6 mRNA Lib 1:10**

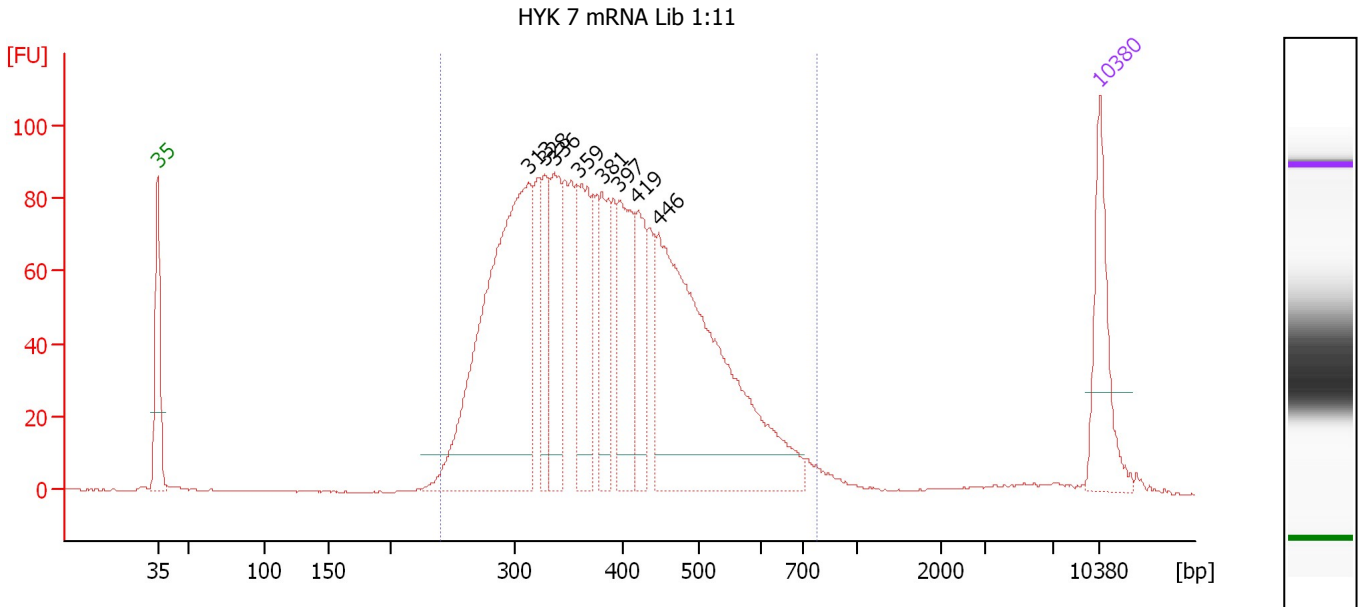
From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
237	803	396	8,980.1	2,182.15	1,705.7	96	24.0	Blue



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-23\2013-08-23\_002.xad

Created: 8/23/2013 4:31:29 PM  
 Modified: 8/23/2013 5:13:39 PM

**Electropherogram Summary Continued ...**



**Setpoint Deviations for sample 5 : HYK 7 mRNA Lib 1:11**

Height Threshold [FU] : 10

**Overall Results for sample 5 : HYK 7 mRNA Lib 1:11**

Number of peaks found: 8                      Corr. Area 1: 2,006.4  
 Noise: 0.2

**Peak table for sample 5 : HYK 7 mRNA Lib 1:11**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	313	533.21	2,580.2	
3	328	80.89	373.9	
4	336	121.75	548.3	
5	359	122.30	516.0	
6	381	87.25	346.8	
7	397	119.88	458.1	
8	419	85.82	310.1	
9	446	473.86	1,609.3	
10	10,380	75.00	10.9	Upper Marker

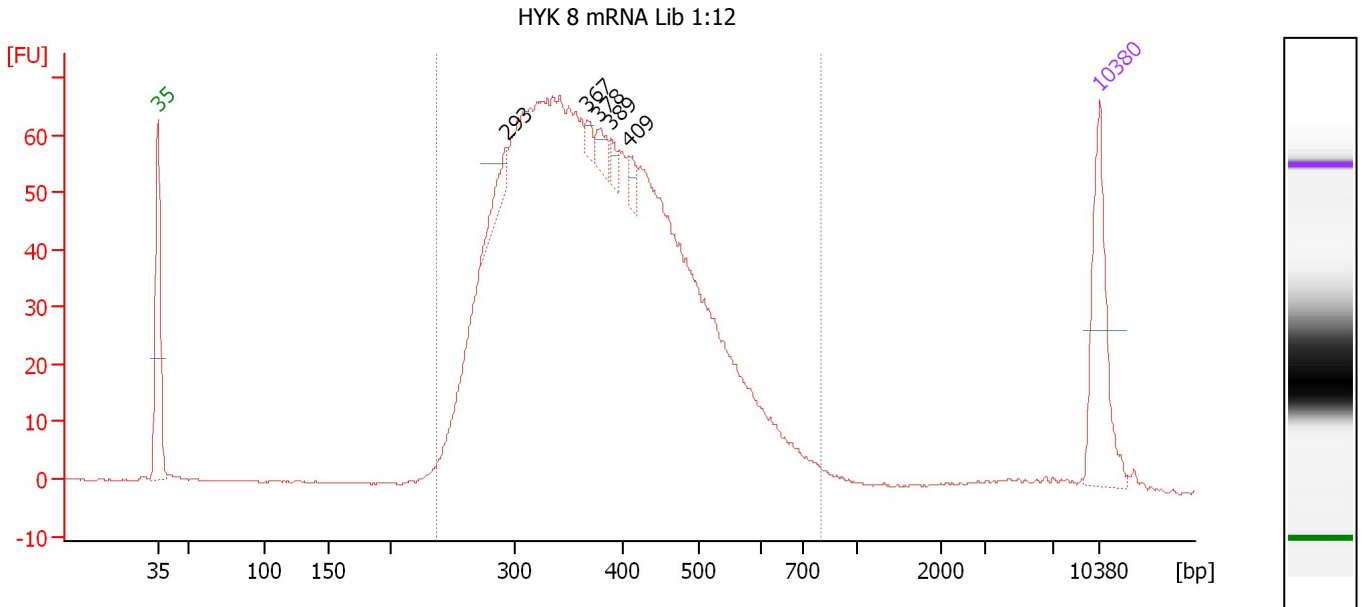
**Region table for sample 5 : HYK 7 mRNA Lib 1:11**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
241	773	395	8,324.0	2,011.19	2,006.4	96	24.4	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-23\2013-08-23\_002.xad

Created: 8/23/2013 4:31:29 PM  
 Modified: 8/23/2013 5:13:39 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : HYK 8 mRNA Lib 1:12**

Number of peaks found: 5                      Corr. Area 1: 1,523.1  
 Noise: 0.2

**Peak table for sample 6 : HYK 8 mRNA Lib 1:12**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	293	24.22	125.1	
3	367	8.10	33.5	
4	378	15.04	60.3	
5	389	9.51	37.0	
6	409	10.63	39.4	
7	10,380	75.00	10.9	Upper Marker

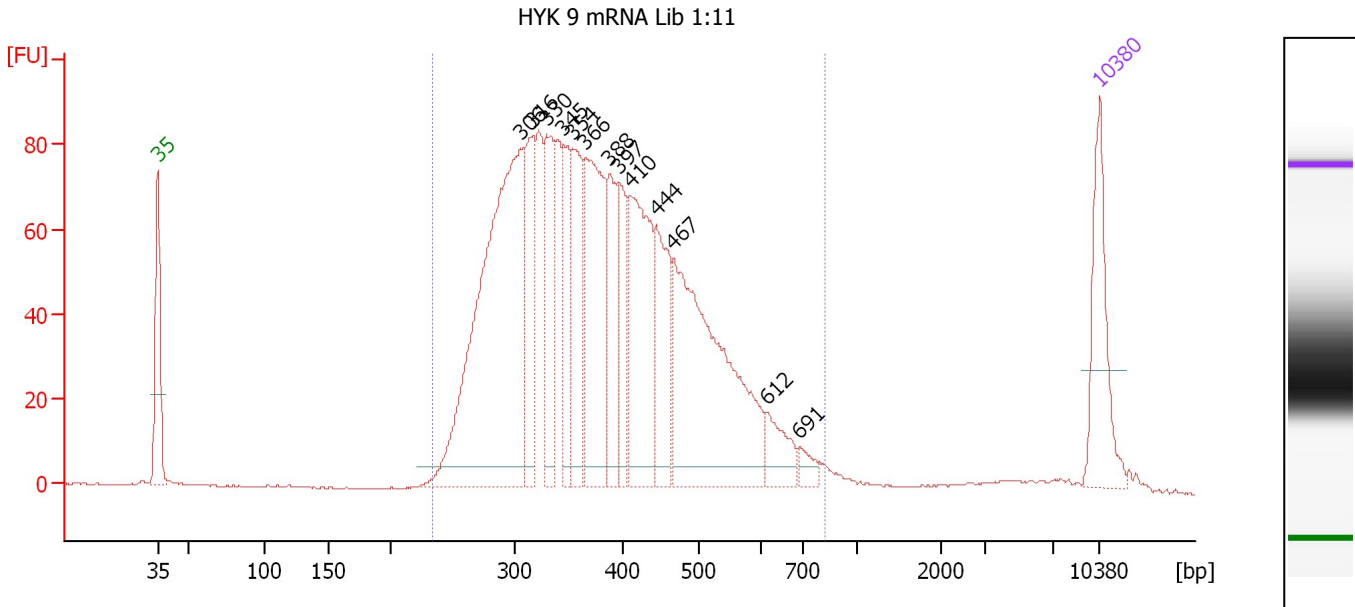
**Region table for sample 6 : HYK 8 mRNA Lib 1:12**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
236	801	390	9,865.8	2,353.05	1,523.1	95	24.5	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-23\2013-08-23\_002.xad

Created: 8/23/2013 4:31:29 PM  
 Modified: 8/23/2013 5:13:39 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : HYK 9 mRNA Lib 1:11**

Number of peaks found: 13                      Corr. Area 1: 1,870.7  
 Noise: 0.2

**Peak table for sample 7 : HYK 9 mRNA Lib 1:11**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	306	525.74	2,604.8	
3	316	107.62	515.2	
4	330	111.88	514.2	
5	345	85.42	374.7	
6	354	95.13	406.9	
7	366	194.84	807.7	
8	388	86.03	335.9	
9	397	66.61	254.3	
10	410	168.99	624.8	
11	444	96.61	330.0	
12	467	322.22	1,046.3	
13	612	36.28	89.8	
14	691	13.71	30.1	
15	10,380	75.00	10.9	Upper Marker

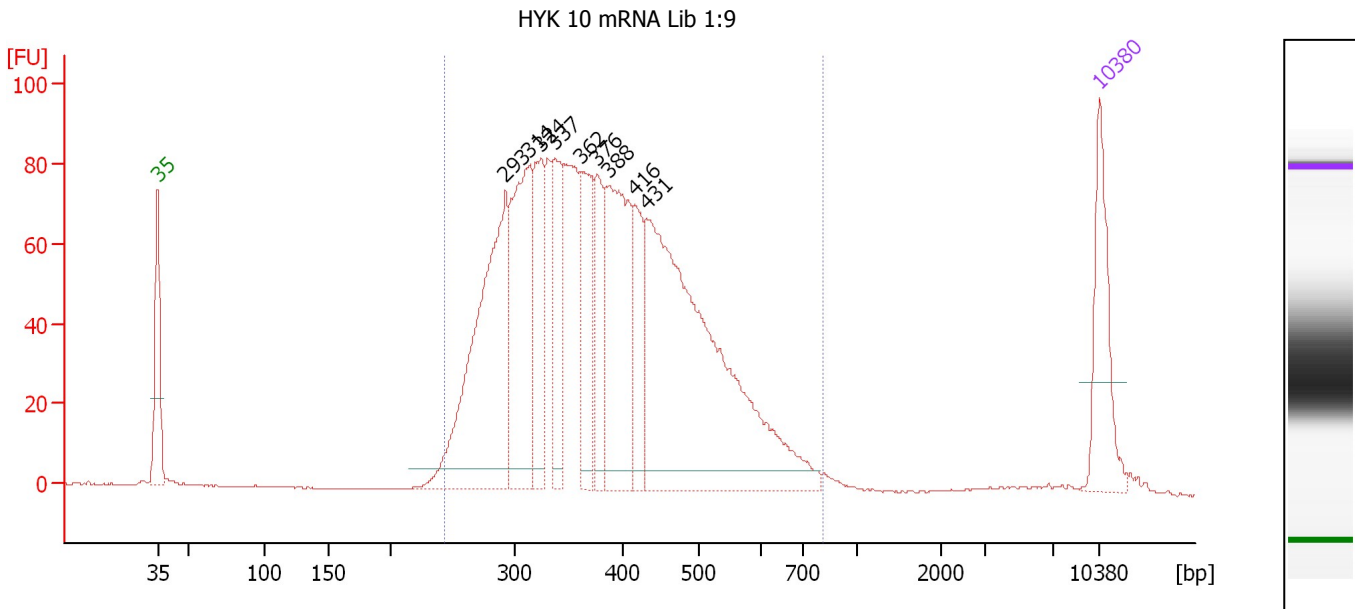
**Region table for sample 7 : HYK 9 mRNA Lib 1:11**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
234	818	393	9,127.5	2,183.16	1,870.7	96	25.4	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-23\2013-08-23\_002.xad

Created: 8/23/2013 4:31:29 PM  
 Modified: 8/23/2013 5:13:39 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : HYK 10 mRNA Lib 1:9**

Number of peaks found: 9                      Corr. Area 1: 1,853.7  
 Noise: 0.1

**Peak table for sample 8 : HYK 10 mRNA Lib 1:9**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	293	358.18	1,853.4	
3	314	206.63	998.6	
4	324	126.73	592.0	
5	337	97.95	440.2	
6	362	112.62	471.4	
7	376	90.11	363.1	
8	388	204.32	798.8	
9	416	85.52	311.7	
10	431	547.66	1,925.1	
11	10,380	75.00	10.9	Upper Marker

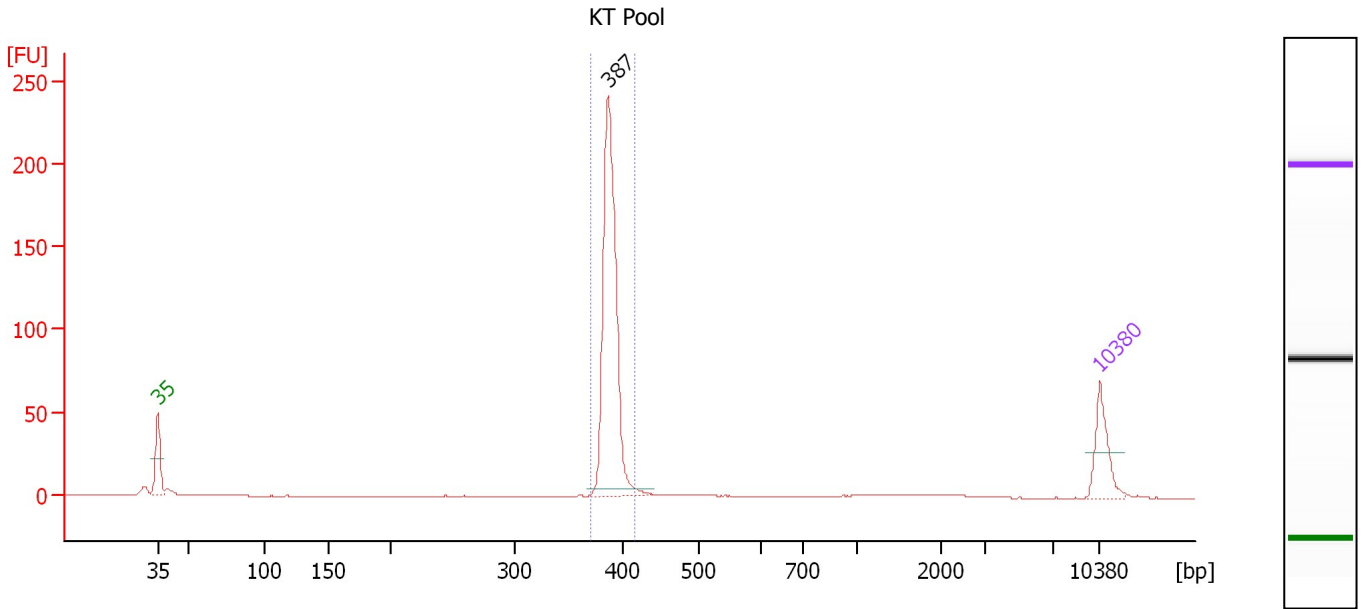
**Region table for sample 8 : HYK 10 mRNA Lib 1:9**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
244	813	393	8,497.7	2,043.03	1,853.7	97	24.6	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-23\2013-08-23\_002.xad

Created: 8/23/2013 4:31:29 PM  
 Modified: 8/23/2013 5:13:39 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : KT Pool**

Number of peaks found: 1                      Corr. Area 1: 347.8  
 Noise: 0.1

**Peak table for sample 9 : KT Pool**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	387	583.28	2,284.9	
3	10,380	75.00	10.9	Upper Marker

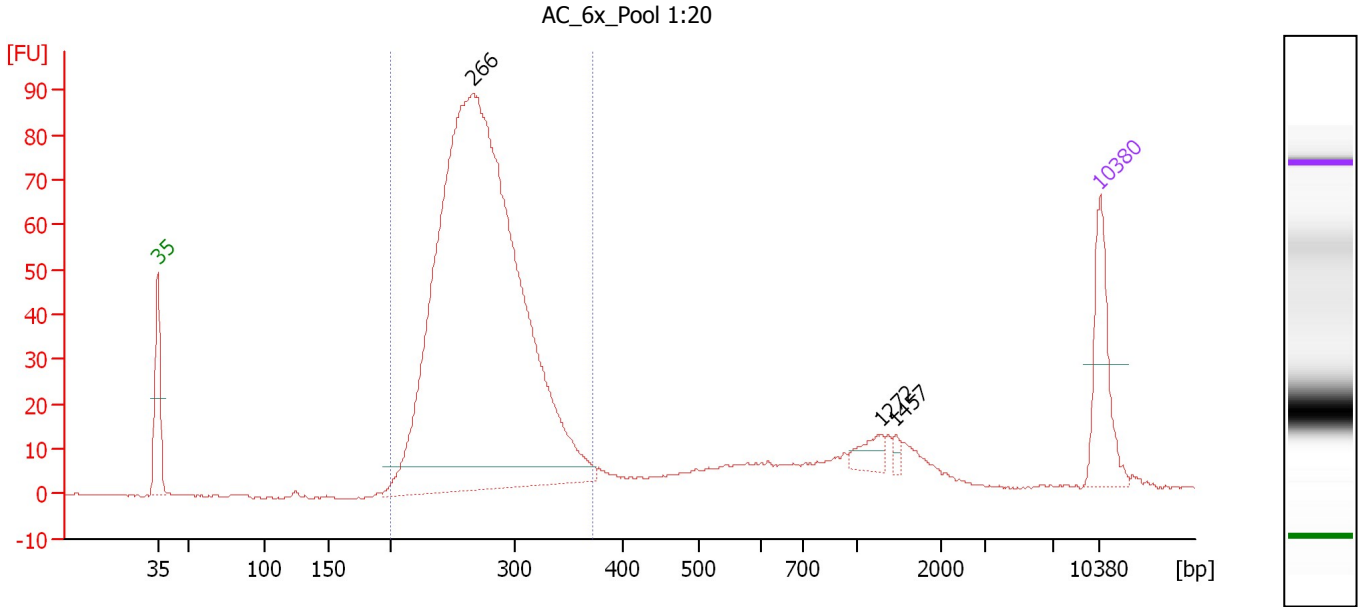
**Region table for sample 9 : KT Pool**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
371	416	389	2,245.9	576.15	347.8	83	1.6	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-23\2013-08-23\_002.xad

Created: 8/23/2013 4:31:29 PM  
 Modified: 8/23/2013 5:13:39 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : AC 6x Pool 1:20**

Number of peaks found: 3                      Corr. Area 1: 937.2  
 Noise: 0.2

**Peak table for sample 10 : AC 6x Pool 1:20**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	266	1,668.58	9,507.9	
3	1,272	20.76	24.7	
4	1,457	6.73	7.0	
5	10,380	75.00	10.9	Upper Marker

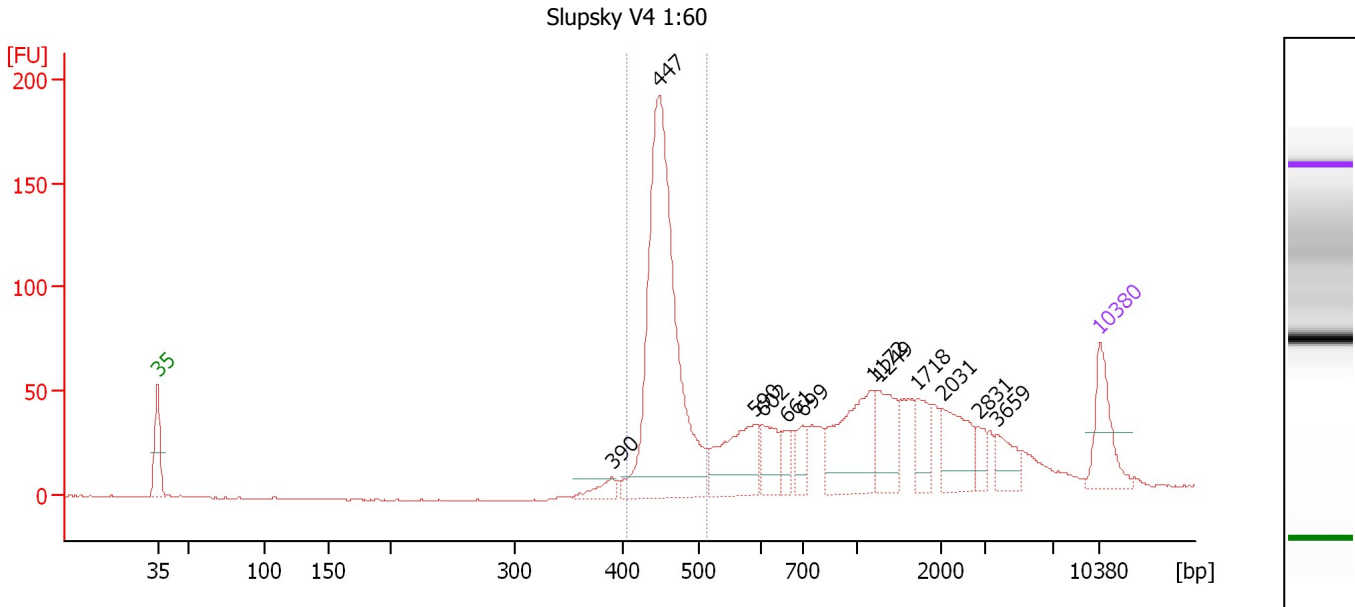
**Region table for sample 10 : AC 6x Pool 1:20**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	373	275	9,264.4	1,660.33	937.2	82	12.0	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-23\2013-08-23\_002.xad

Created: 8/23/2013 4:31:29 PM  
 Modified: 8/23/2013 5:13:39 PM

**Electropherogram Summary Continued ...**



**Setpoint Deviations for sample 11 : Slusky V4 1:60**

Height Threshold [FU] : 10

**Overall Results for sample 11 : Slusky V4 1:60**

Number of peaks found: 12                      Corr. Area 1: 519.4  
 Noise: 0.3

**Peak table for sample 11 : Slusky V4 1:60**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	390	28.44	110.4	
3	447	722.96	2,451.3	
4	590	142.18	365.3	
5	602	60.85	153.2	
6	661	34.66	79.5	
7	699	38.68	83.9	
8	1,172	154.89	200.2	
9	1,249	87.73	106.4	
10	1,718	49.94	44.0	
11	2,031	85.06	63.5	
12	2,831	23.24	12.4	
13	3,659	38.58	16.0	
14	10,380	75.00	10.9	Upper Marker

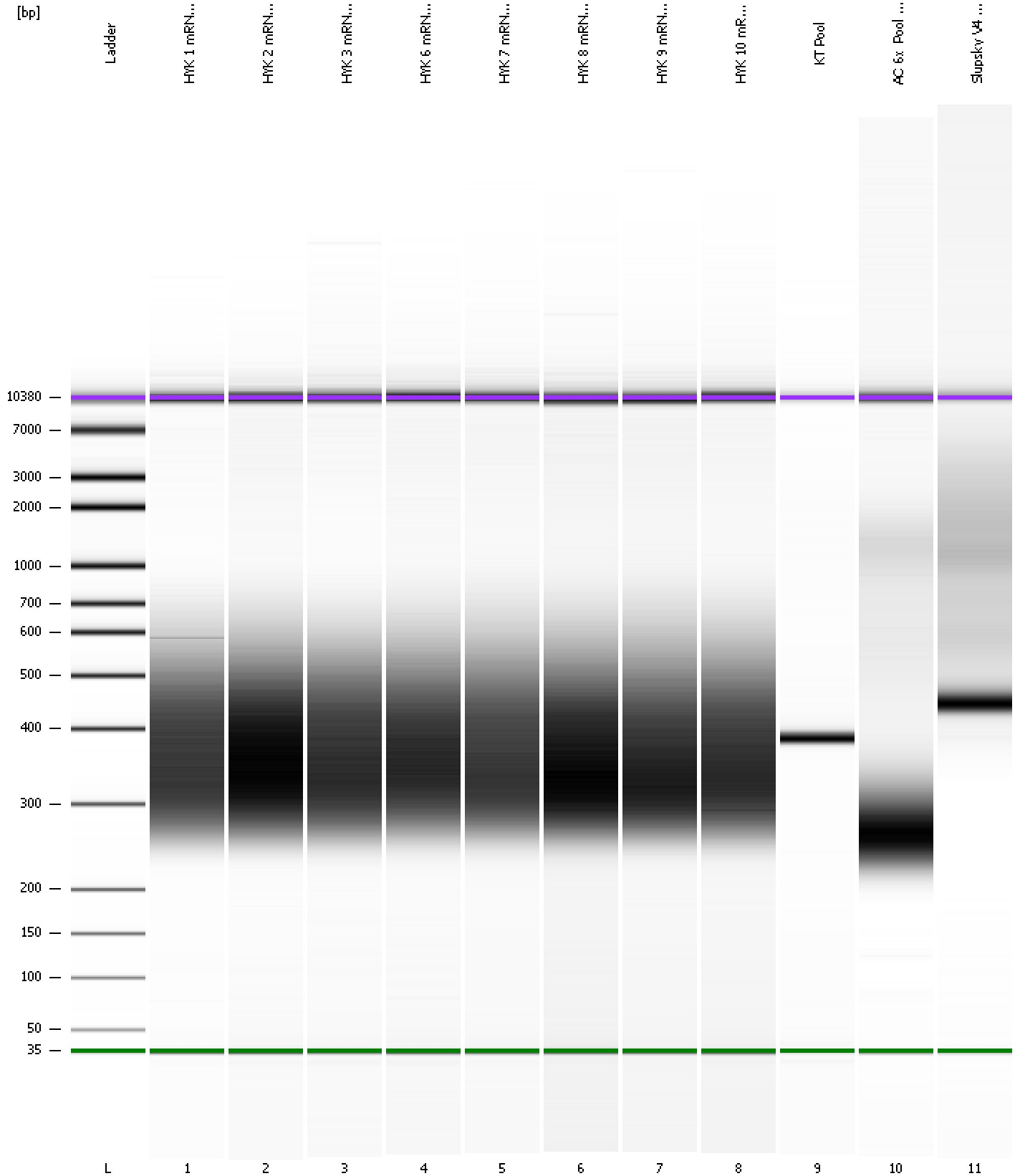
**Region table for sample 11 : Slusky V4 1:60**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
404	511	454	2,245.2	672.44	519.4	39	4.1	Blue

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-23\2013-08-23\_002.xad

Created: 8/23/2013 4:31:29 PM  
Modified: 8/23/2013 5:13:39 PM

**Gel Image**





Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-23\2013-08-23\_002.xad

Created: 8/23/2013 4:31:29 PM  
 Modified: 8/23/2013 5:13:39 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		8/23/2013 5:11:52 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2013-08-23\2013-08-23_002.xad)		Instrument	Run		8/23/2013 4:31:29 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		8/23/2013 4:31:29 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		8/23/2013 4:31:29 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		8/23/2013 4:31:29 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		8/23/2013 4:31:29 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		8/23/2013 4:31:29 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		8/23/2013 4:31:29 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1