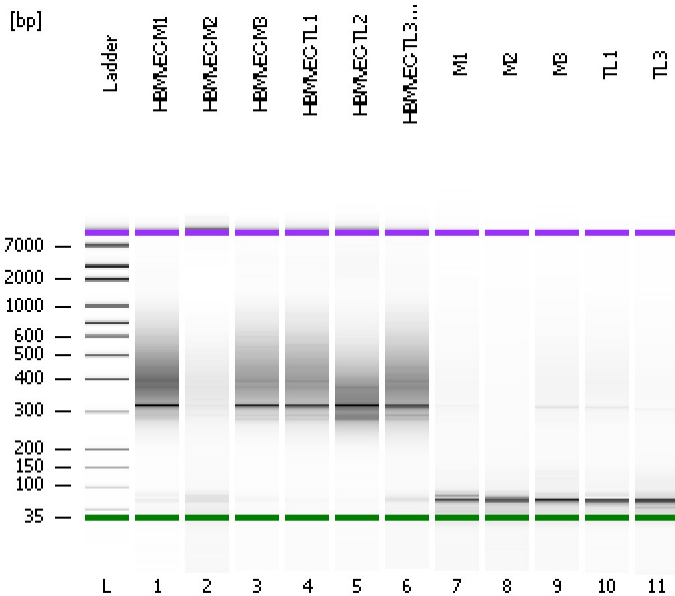


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\Data\2014-08-01\2014-08-01\_006.xad

Created: 8/1/2014 1:53:23 PM  
Modified: 8/1/2014 2:46:15 PM

### Electrophoresis File Run Summary



#### Instrument Information:

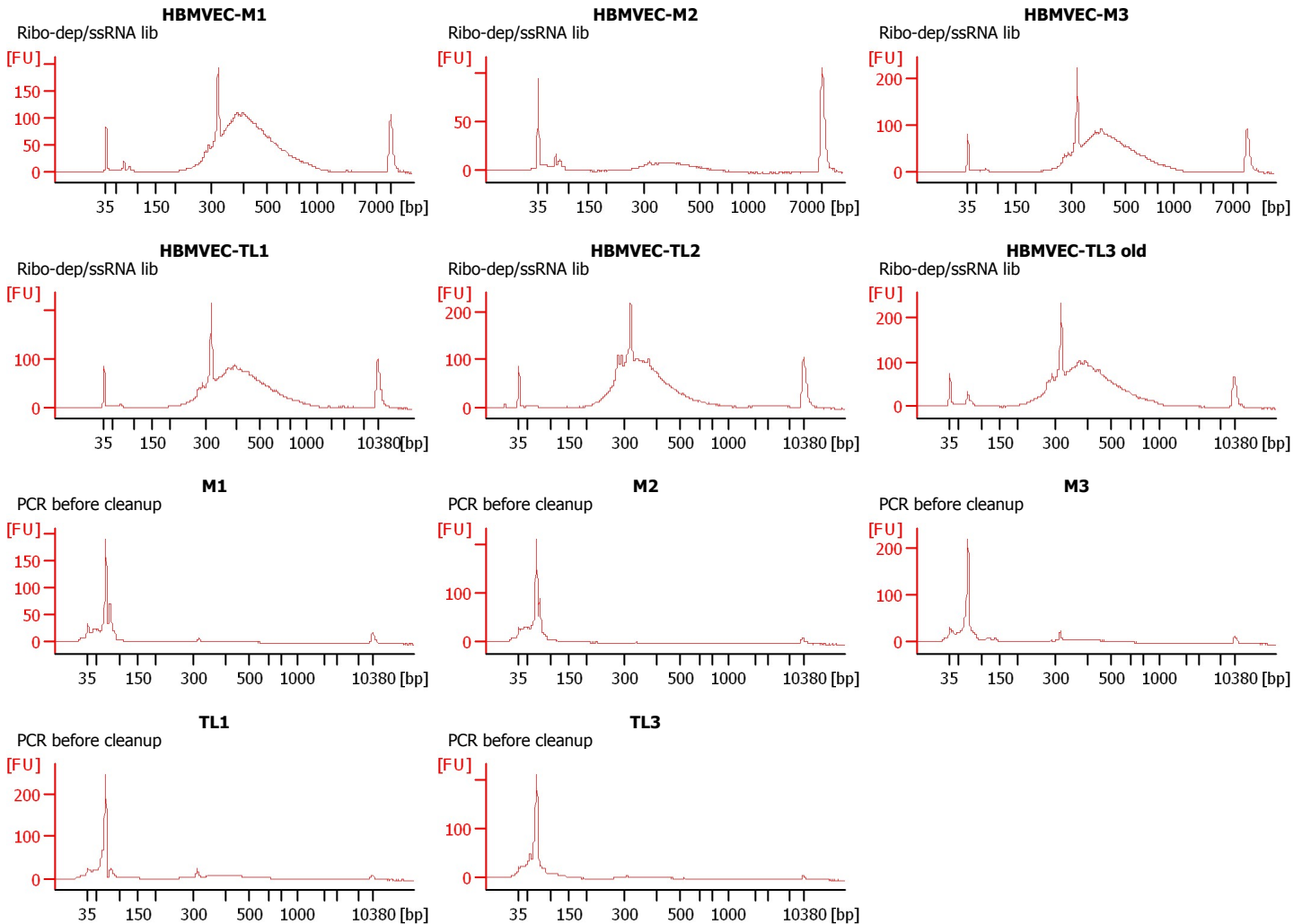
Instrument Name: DE13701086      Firmware: C.01.069  
Serial#: DE13701086      Type: G2938B

#### 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:



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\Data\2014-08-01\2014-08-01\_006.xad

Created: 8/1/2014 1:53:23 PM  
Modified: 8/1/2014 2:46:15 PM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
HBMVEC-M1	Ribo-dep/ssRNA lib	<input type="checkbox"/>	✓			
HBMVEC-M2	Ribo-dep/ssRNA lib	<input type="checkbox"/>	✓			
HBMVEC-M3	Ribo-dep/ssRNA lib	<input type="checkbox"/>	✓			
HBMVEC-TL1	Ribo-dep/ssRNA lib	<input type="checkbox"/>	✓			
HBMVEC-TL2	Ribo-dep/ssRNA lib	<input type="checkbox"/>	✓			
HBMVEC-TL3 old	Ribo-dep/ssRNA lib	<input type="checkbox"/>	✓			
M1	PCR before cleanup	<input type="checkbox"/>	✓			
M2	PCR before cleanup	<input type="checkbox"/>	✓			
M3	PCR before cleanup	<input type="checkbox"/>	✓			
TL1	PCR before cleanup	<input type="checkbox"/>	✓			
TL3	PCR before cleanup	<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\2014-08-01\2014-08-01\_006.xad

Created: 8/1/2014 1:53:23 PM  
Modified: 8/1/2014 2:46:15 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

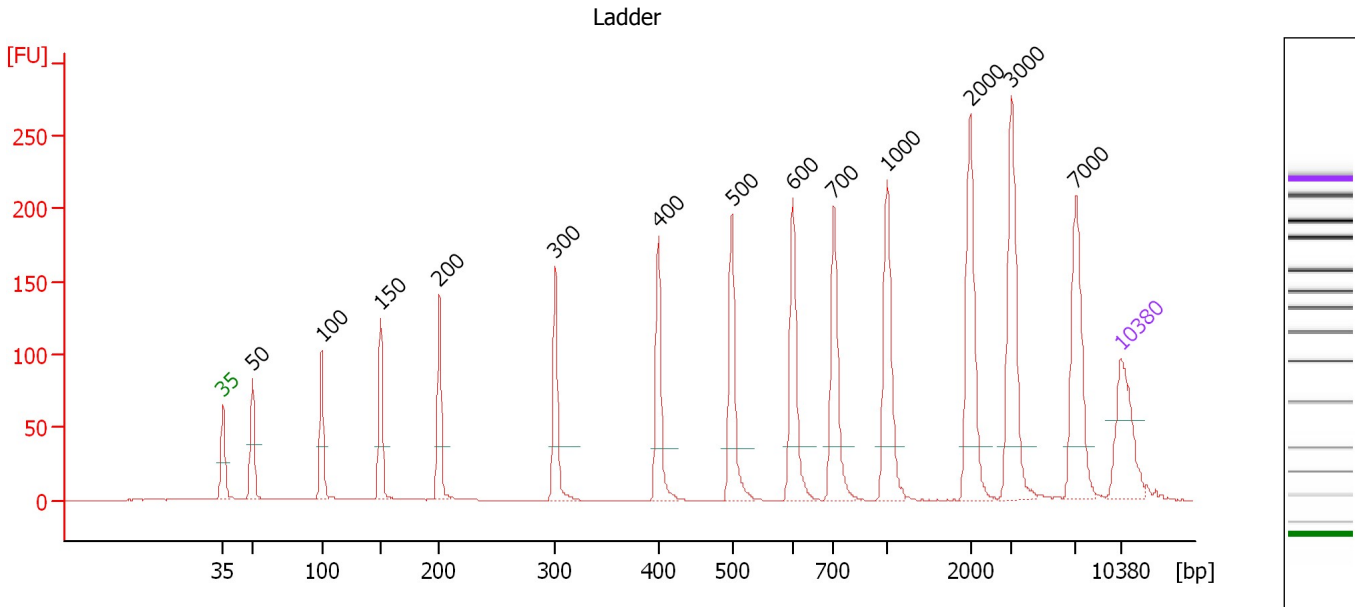
**Ladder**

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:\... bioanalyzer\2100 expert\Data\2014-08-01\2014-08-01\_006.xad

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 Modified: 8/1/2014 2:46:15 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.1

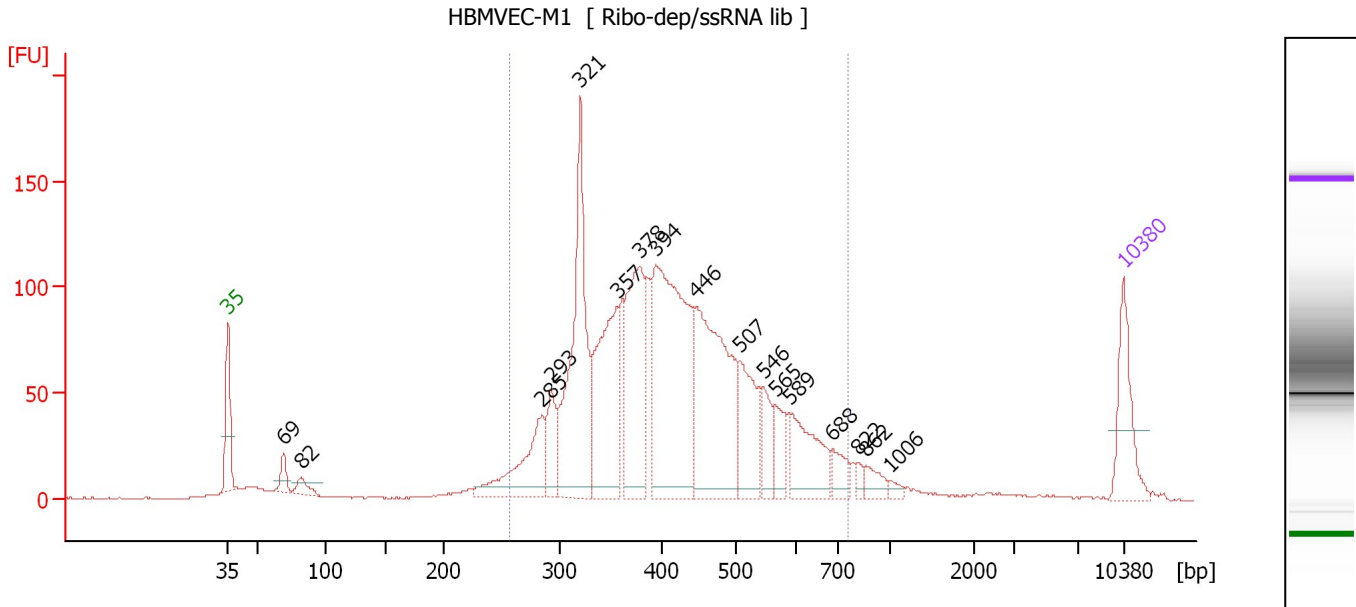
**Peak table for Ladder**

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:\... bioanalyzer\2100 expert\Data\2014-08-01\2014-08-01\_006.xad

Created: 8/1/2014 1:53:23 PM  
 Modified: 8/1/2014 2:46:15 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : HBMVEC-M1**

Number of peaks found: 17                      Corr. Area 1: 2,331.6  
 Noise: 0.2

**Peak table for sample 1 : HBMVEC-M1**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	69	27.81	611.2	
3	82	26.13	484.8	
4	285	149.75	796.0	
5	293	69.93	361.8	
6	321	357.95	1,692.2	
7	357	247.19	1,049.5	
8	378	234.39	939.1	
9	394	443.58	1,706.9	
10	446	343.25	1,166.8	
11	507	123.25	368.1	
12	546	53.25	147.8	
13	565	44.78	120.0	
14	589	108.68	279.5	
15	688	32.82	72.3	
16	822	8.95	16.5	
17	862	22.44	39.5	
18	1,006	8.23	12.4	
19	10,380	75.00	10.9	Upper Marker

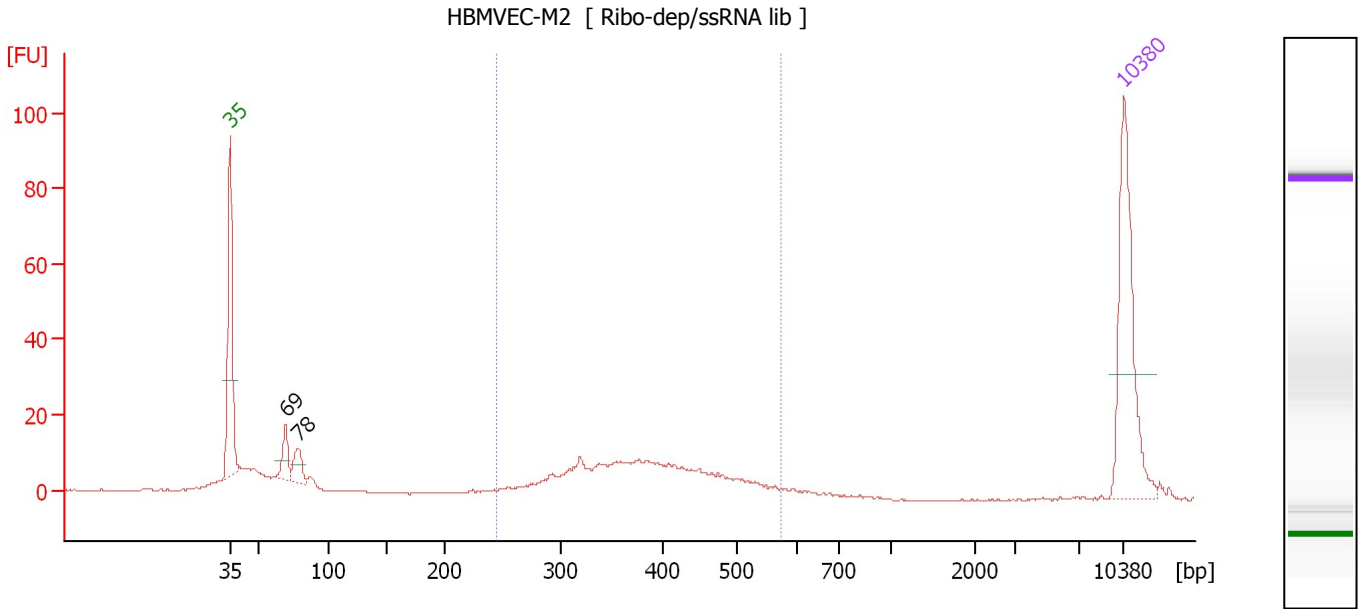
**Region table for sample 1 : HBMVEC-M1**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. for Area	% of Total	Size distribution in CV [%]
257	763	422	8,993.0	2,327.43	2,331.6	90	23.8

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-08-01\2014-08-01\_006.xad

Created: 8/1/2014 1:53:23 PM  
 Modified: 8/1/2014 2:46:15 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : HBMVEC-M2**

Number of peaks found: 2                      Corr. Area 1: 178.5  
 Noise: 0.1

**Peak table for sample 2 : HBMVEC-M2**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	69	21.27	467.1	
3	78	20.11	391.1	
4	10,380	75.00	10.9	Upper Marker

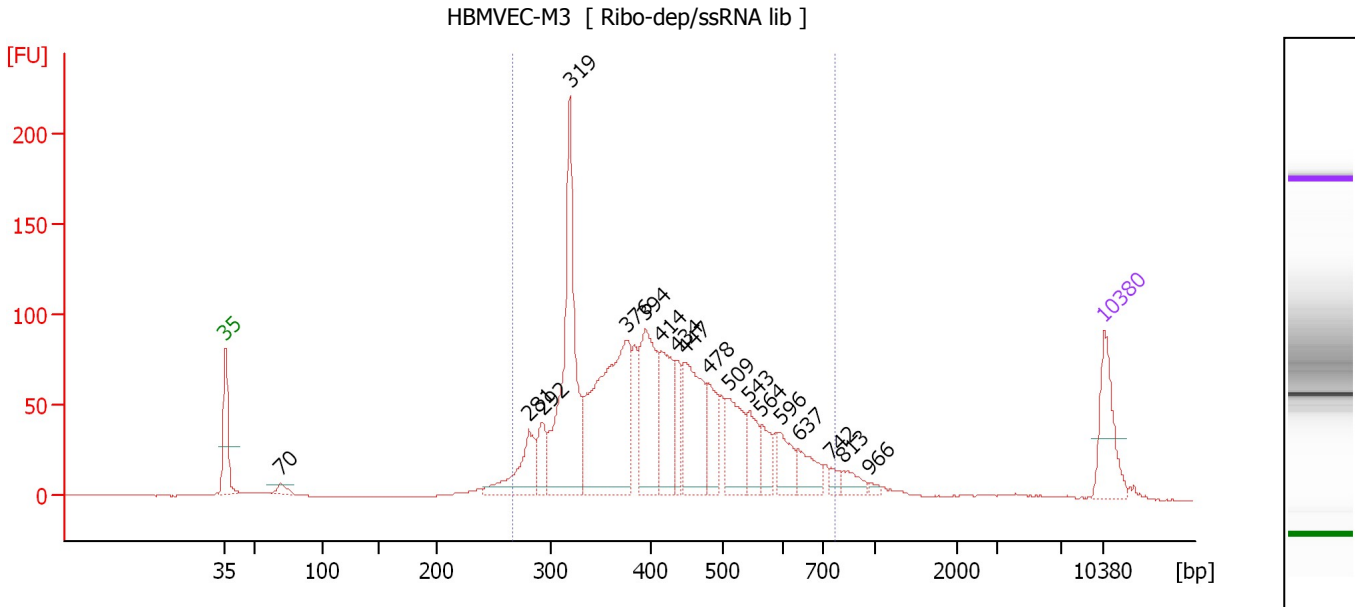
**Region table for sample 2 : HBMVEC-M2**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
244	573	387	677.3	164.67	178.5	59	19.1

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-08-01\2014-08-01\_006.xad

Created: 8/1/2014 1:53:23 PM  
 Modified: 8/1/2014 2:46:15 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : HBMVEC-M3**

Number of peaks found: 18                      Corr. Area 1: 1,952.5  
 Noise: 0.1

**Peak table for sample 3 : HBMVEC-M3**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	70	19.61	426.3	
3	281	112.71	608.2	
4	292	58.42	302.6	
5	319	390.36	1,854.0	
6	376	391.76	1,577.9	
7	394	198.72	763.9	
8	414	131.51	481.3	
9	434	55.41	193.4	
10	447	185.43	629.1	
11	478	71.87	227.6	
12	509	104.78	312.0	
13	543	56.86	158.7	
14	564	39.41	105.8	
15	596	49.55	126.0	
16	637	49.37	117.4	
17	742	13.26	27.1	
18	813	24.89	46.4	
19	966	6.07	9.5	
20	10,380	75.00	10.9	Upper Marker

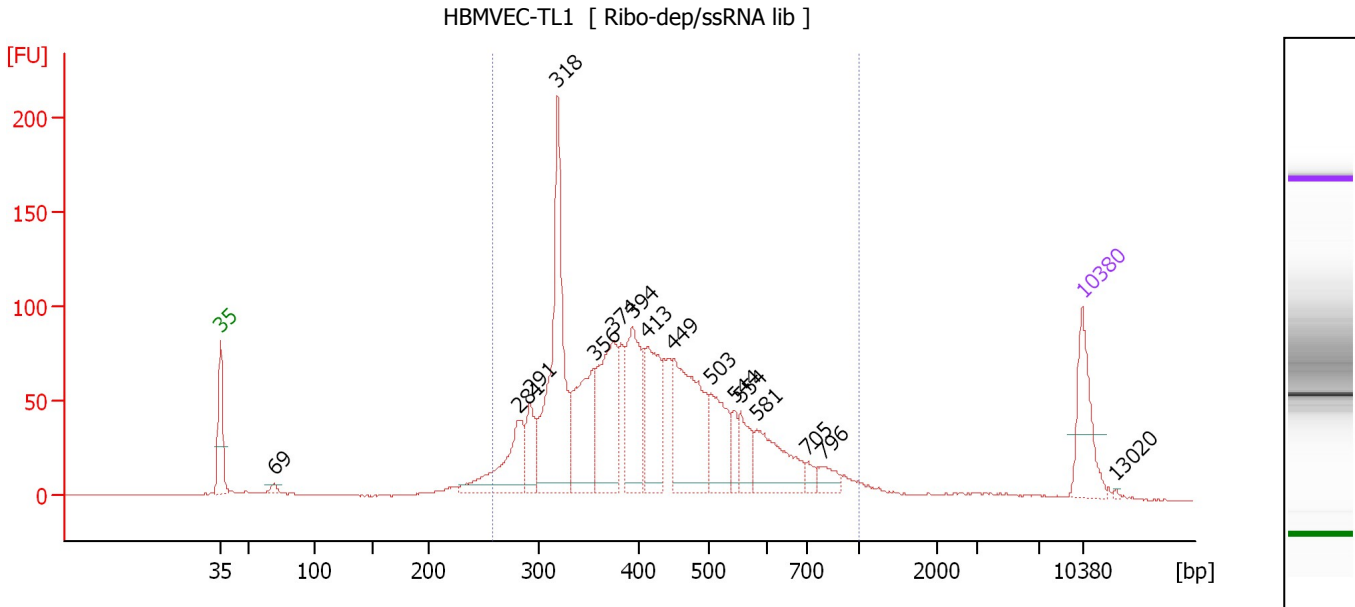
**Region table for sample 3 : HBMVEC-M3**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
266	771	423	7,998.2	2,073.39	1,952.5	91	24.2

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-08-01\2014-08-01\_006.xad

Created: 8/1/2014 1:53:23 PM  
 Modified: 8/1/2014 2:46:15 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : HBMVEC-TL1**

Number of peaks found: 16                      Corr. Area 1: 2,007.6  
 Noise: 0.2

**Peak table for sample 4 : HBMVEC-TL1**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	69	10.77	236.8	
3	281	139.03	750.2	
4	291	67.11	349.1	
5	318	352.30	1,677.3	
6	356	171.91	731.6	
7	374	187.17	757.5	
8	394	151.77	584.0	
9	413	131.12	480.8	
10	449	225.78	761.2	
11	503	102.87	310.0	
12	544	26.50	73.8	
13	554	49.94	136.6	
14	581	105.46	274.9	
15	705	14.92	32.1	
16	796	22.50	42.9	
17	10,380	75.00	10.9	Upper Marker
18	13,020	0.00	0.0	

**Region table for sample 4 : HBMVEC-TL1**

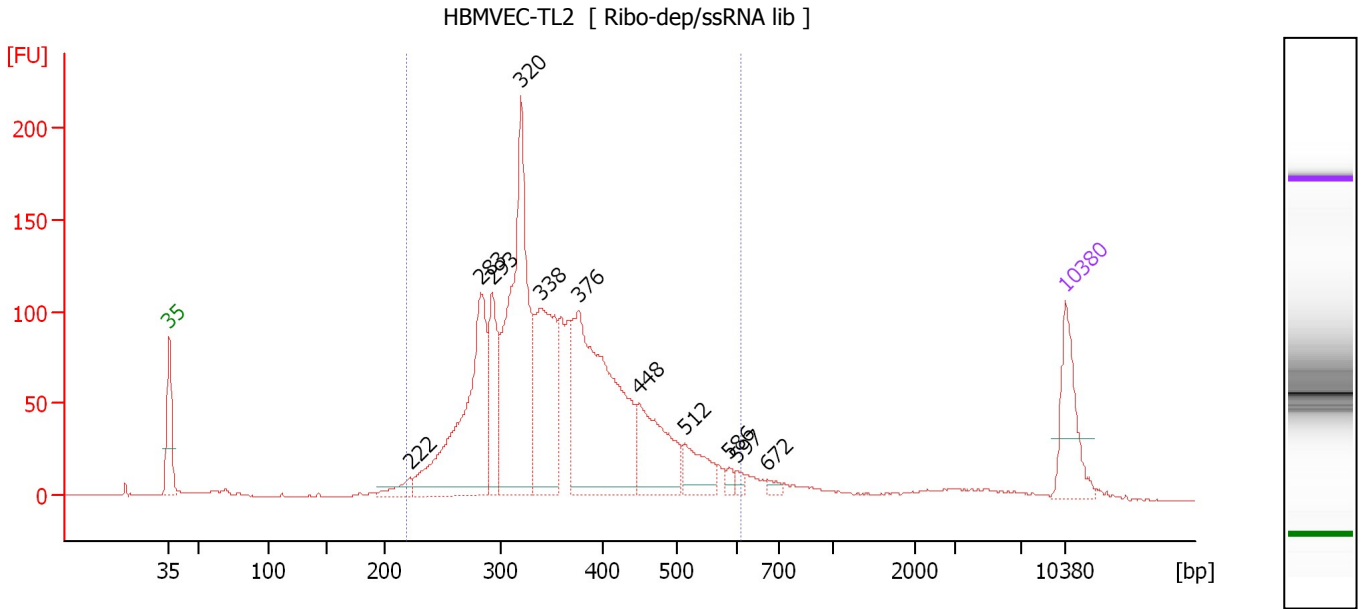
From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
258	1,000	432	7,626.6	1,972.48	2,007.6	92	29.4



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-08-01\2014-08-01\_006.xad

Created: 8/1/2014 1:53:23 PM  
 Modified: 8/1/2014 2:46:15 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : HBMVEC-TL2**

Number of peaks found: 11      Corr. Area 1: 2,225.7  
 Noise: 0.2

**Peak table for sample 5 : HBMVEC-TL2**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	222	24.56	167.7	
3	283	359.59	1,926.8	
4	293	130.68	676.9	
5	320	446.57	2,116.9	
6	338	242.59	1,086.4	
7	376	434.47	1,751.8	
8	448	144.25	488.2	
9	512	58.75	173.8	
10	586	8.75	22.6	
11	597	8.94	22.7	
12	672	8.18	18.5	
13	10,380	75.00	10.9	Upper Marker

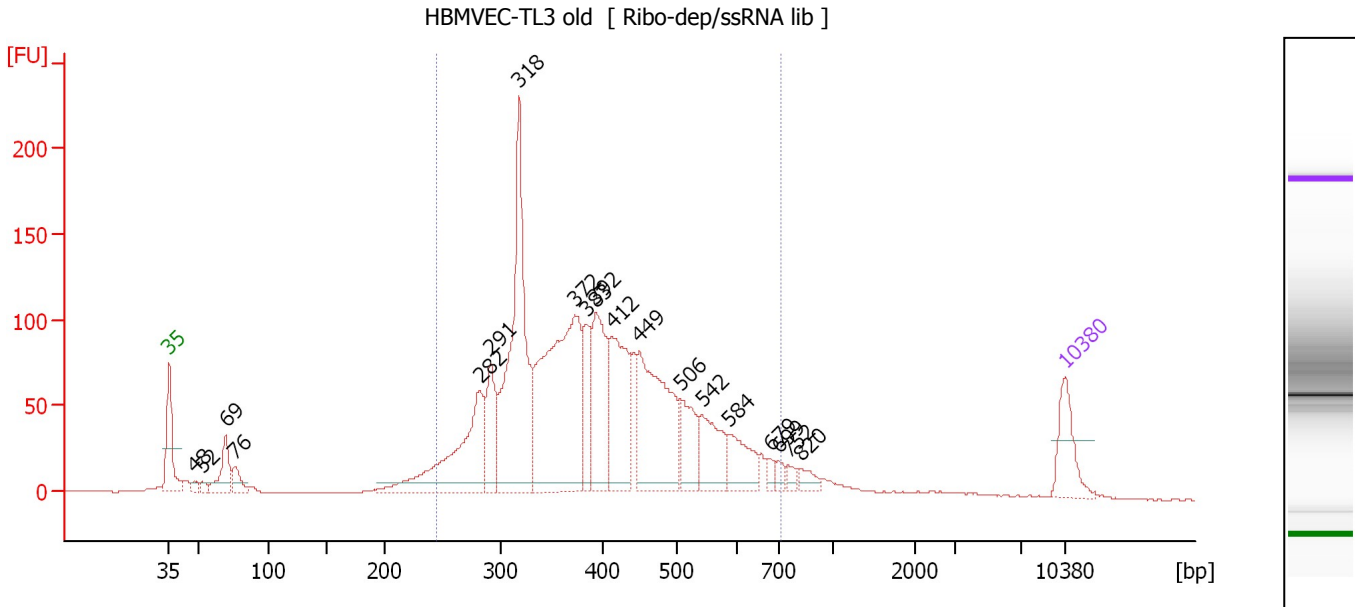
**Region table for sample 5 : HBMVEC-TL2**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
220	607	361	8,866.7	1,992.84	2,225.7	92	21.4

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-08-01\2014-08-01\_006.xad

Created: 8/1/2014 1:53:23 PM  
 Modified: 8/1/2014 2:46:15 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : HBMVEC-TL3 old**

Number of peaks found: 19                      Corr. Area 1: 2,353.5  
 Noise: 0.2

**Peak table for sample 6 : HBMVEC-TL3 old**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	48	14.29	451.8	
3	52	13.95	402.7	
4	69	96.93	2,113.5	
5	76	44.94	894.5	
6	282	346.49	1,863.1	
7	291	135.89	707.1	
8	318	571.41	2,722.8	
9	372	596.15	2,427.1	
10	383	112.16	444.0	
11	392	227.95	880.5	
12	412	227.47	836.9	
13	449	347.72	1,174.5	
14	506	109.47	327.9	
15	542	117.05	327.4	
16	584	93.45	242.3	
17	679	15.11	33.7	
18	699	17.37	37.7	
19	752	14.27	28.8	
20	820	22.41	41.4	
21	10,380	75.00	10.9	Upper Marker

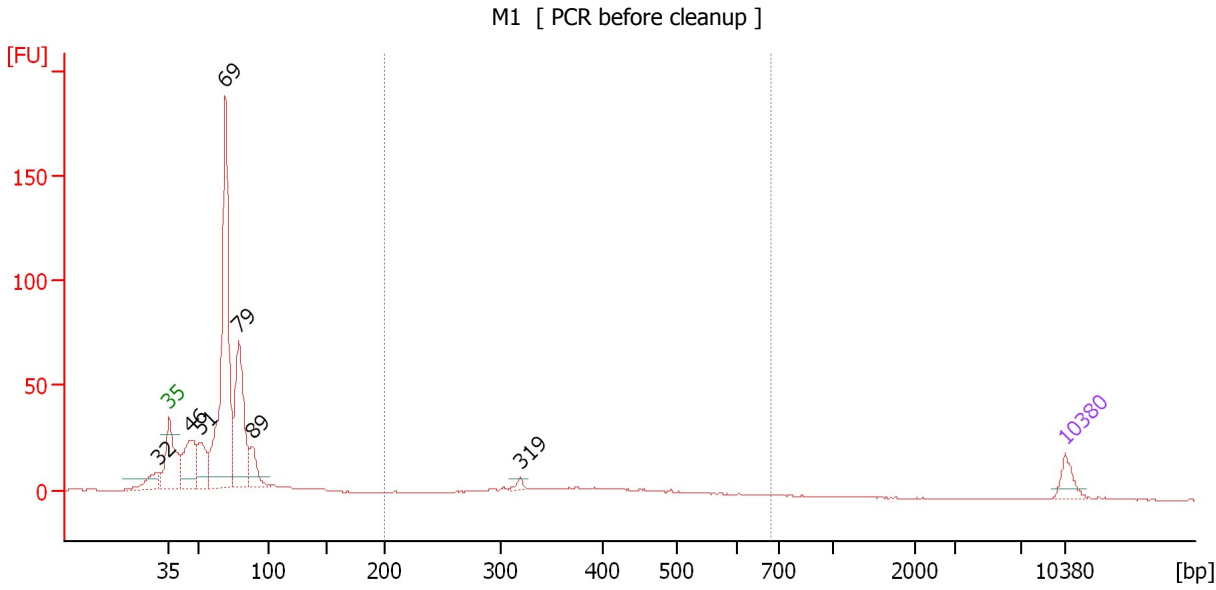
**Region table for sample 6 : HBMVEC-TL3 old**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
245	711	404	12,390.3	3,056.46	2,353.5	87	24.4

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-08-01\2014-08-01\_006.xad

Created: 8/1/2014 1:53:23 PM  
 Modified: 8/1/2014 2:46:15 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : M1**

Number of peaks found: 7                      Corr. Area 1: 77.6  
 Noise: 0.1

**Peak table for sample 7 : M1**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	32	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	46	423.16	13,890.1	
4	51	301.31	8,884.2	
5	69	2,012.69	44,036.7	
6	79	876.11	16,796.3	
7	89	190.78	3,254.6	
8	319	29.25	139.1	
9	10,380	75.00	10.9	Upper Marker

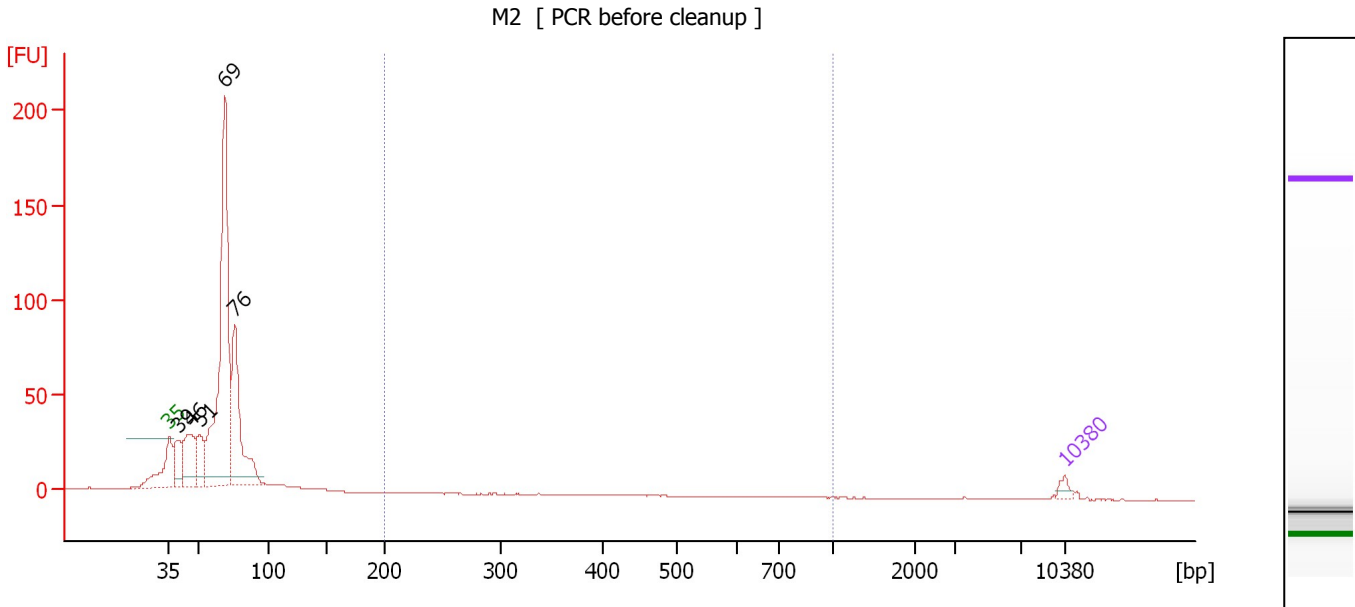
**Region table for sample 7 : M1**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
200	679	393	1,729.5	412.97	77.6	11	24.5

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-08-01\2014-08-01\_006.xad

Created: 8/1/2014 1:53:23 PM  
 Modified: 8/1/2014 2:46:15 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : M2**

Number of peaks found: 5                      Corr. Area 1: 0.2  
 Noise: 0.1

**Peak table for sample 8 : M2**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	39	599.15	23,108.6	
3	46	1,019.12	33,780.7	
4	51	625.14	18,625.3	
5	69	5,326.10	116,989.5	
6	76	2,127.97	42,488.5	
7	10,380	75.00	10.9	Upper Marker

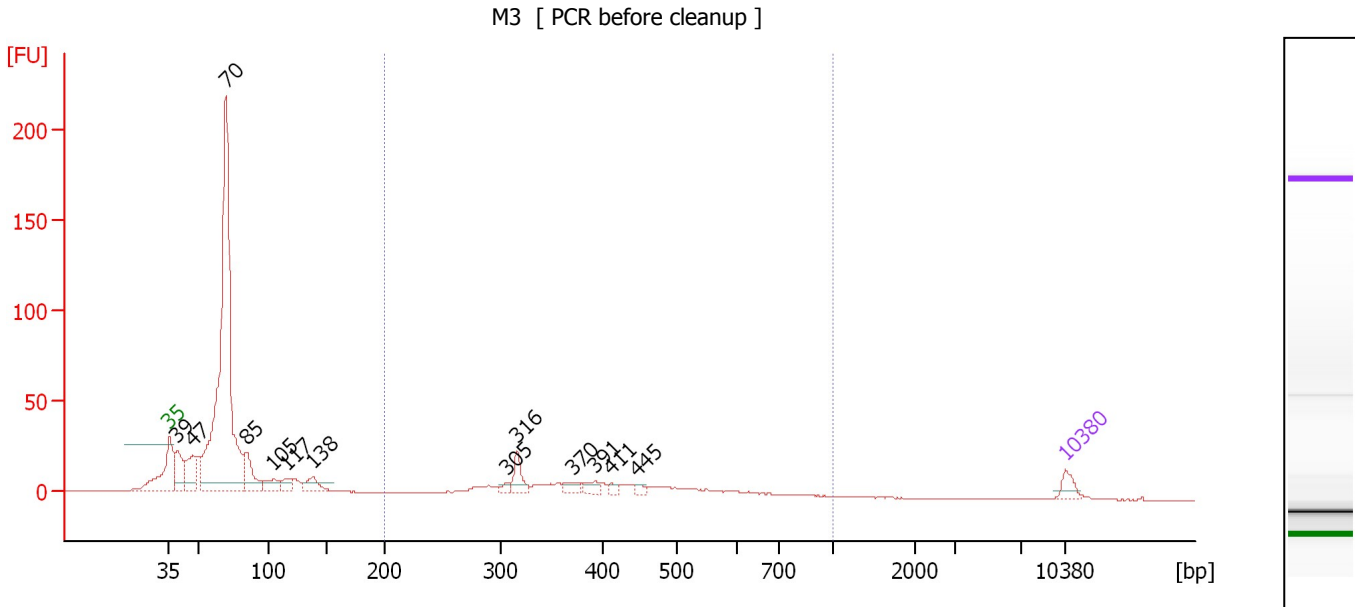
**Region table for sample 8 : M2**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
200	1,000	335	8.5	1.88	0.2	0	4.0

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-08-01\2014-08-01\_006.xad

Created: 8/1/2014 1:53:23 PM  
 Modified: 8/1/2014 2:46:15 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : M3**

Number of peaks found: 13                      Corr. Area 1: 173.5  
 Noise: 0.1

**Peak table for sample 9 : M3**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	39	363.54	14,104.1	
3	47	371.31	11,929.0	
4	70	4,403.49	95,665.3	
5	85	352.95	6,314.2	
6	105	161.10	2,329.6	
7	117	101.15	1,313.0	
8	138	161.50	1,772.7	
9	305	46.01	228.3	
10	316	177.66	851.7	
11	370	78.10	319.9	
12	391	77.76	301.1	
13	411	36.99	136.3	
14	445	37.39	127.3	
15	10,380	75.00	10.9	Upper Marker

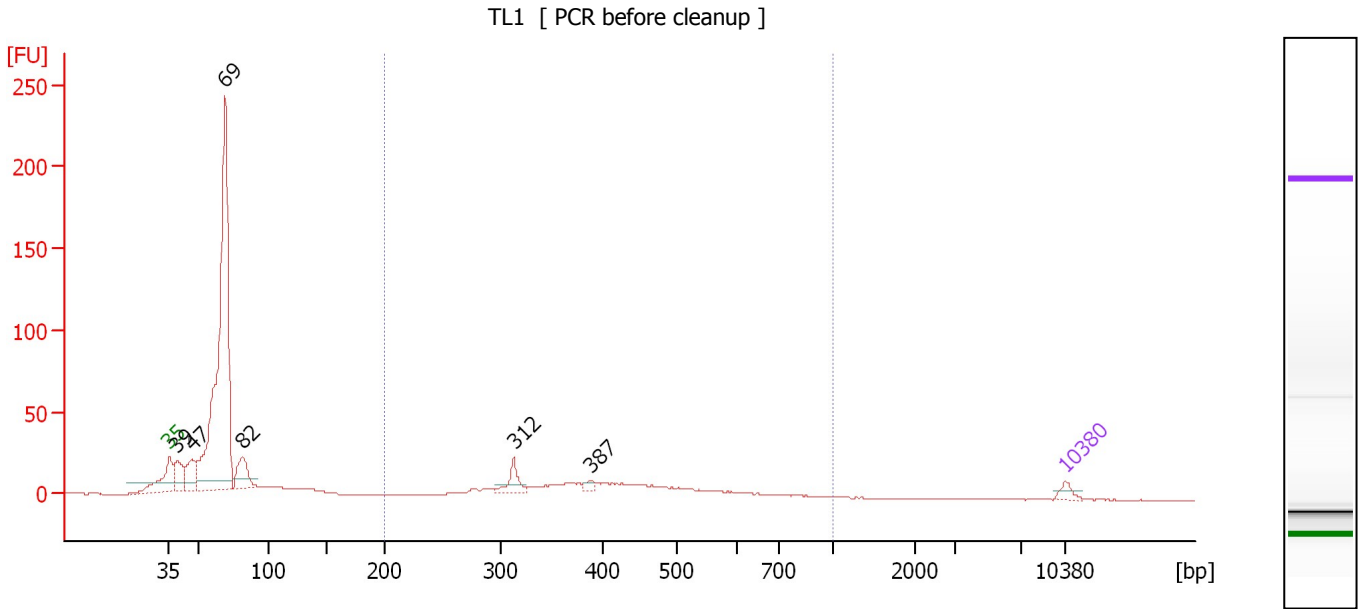
**Region table for sample 9 : M3**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
200	1,000	415	5,016.4	1,236.84	173.5	21	30.1

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-08-01\2014-08-01\_006.xad

Created: 8/1/2014 1:53:23 PM  
 Modified: 8/1/2014 2:46:15 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : TL1**

Number of peaks found: 6                      Corr. Area 1: 206.8  
 Noise: 0.1

**Peak table for sample 10 : TL1**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	39	484.50	18,773.0	
3	47	510.56	16,571.8	
4	69	6,464.19	141,211.5	
5	82	518.77	9,606.2	
6	312	278.86	1,352.2	
7	387	70.59	276.1	
8	10,380	75.00	10.9	Upper Marker

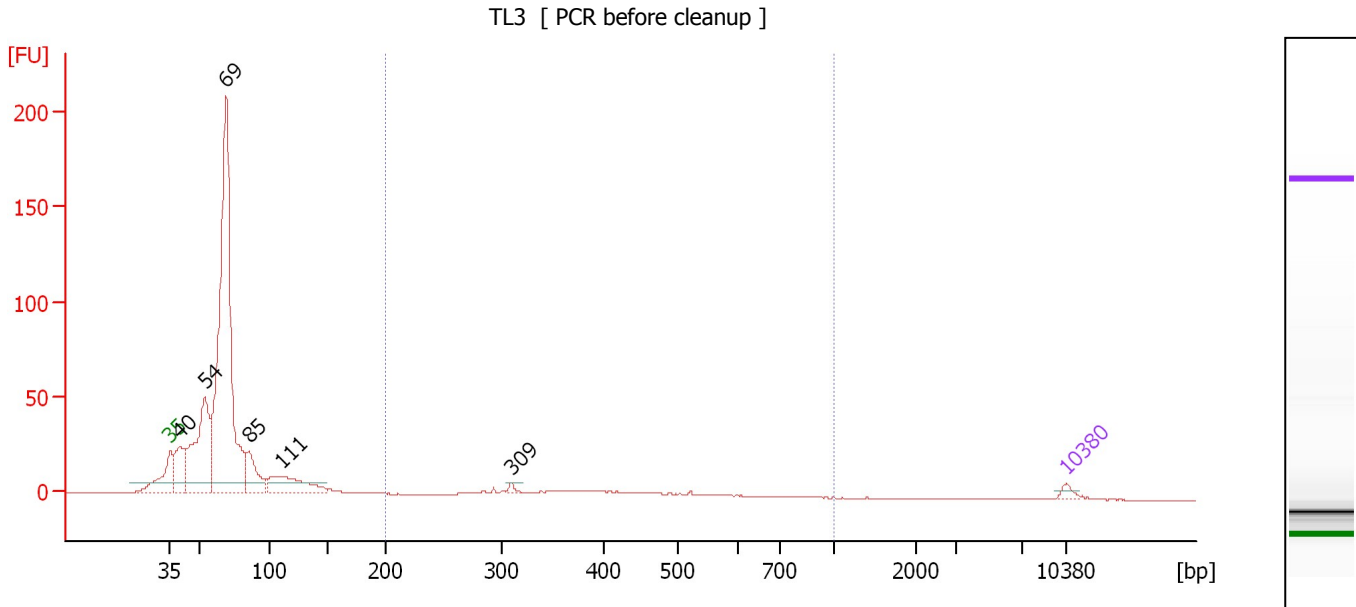
**Region table for sample 10 : TL1**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
200	1,000	424	8,521.5	2,144.83	206.8	24	30.3

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-08-01\2014-08-01\_006.xad

Created: 8/1/2014 1:53:23 PM  
 Modified: 8/1/2014 2:46:15 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : TL3**

Number of peaks found: 6                      Corr. Area 1: 62.0  
 Noise: 0.1

**Peak table for sample 11 : TL3**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	40	963.02	36,651.1	
3	54	2,825.86	79,694.4	
4	69	8,944.97	196,121.7	
5	85	809.96	14,371.9	
6	111	1,087.23	14,903.6	
7	309	56.46	276.6	
8	10,380	75.00	10.9	Upper Marker

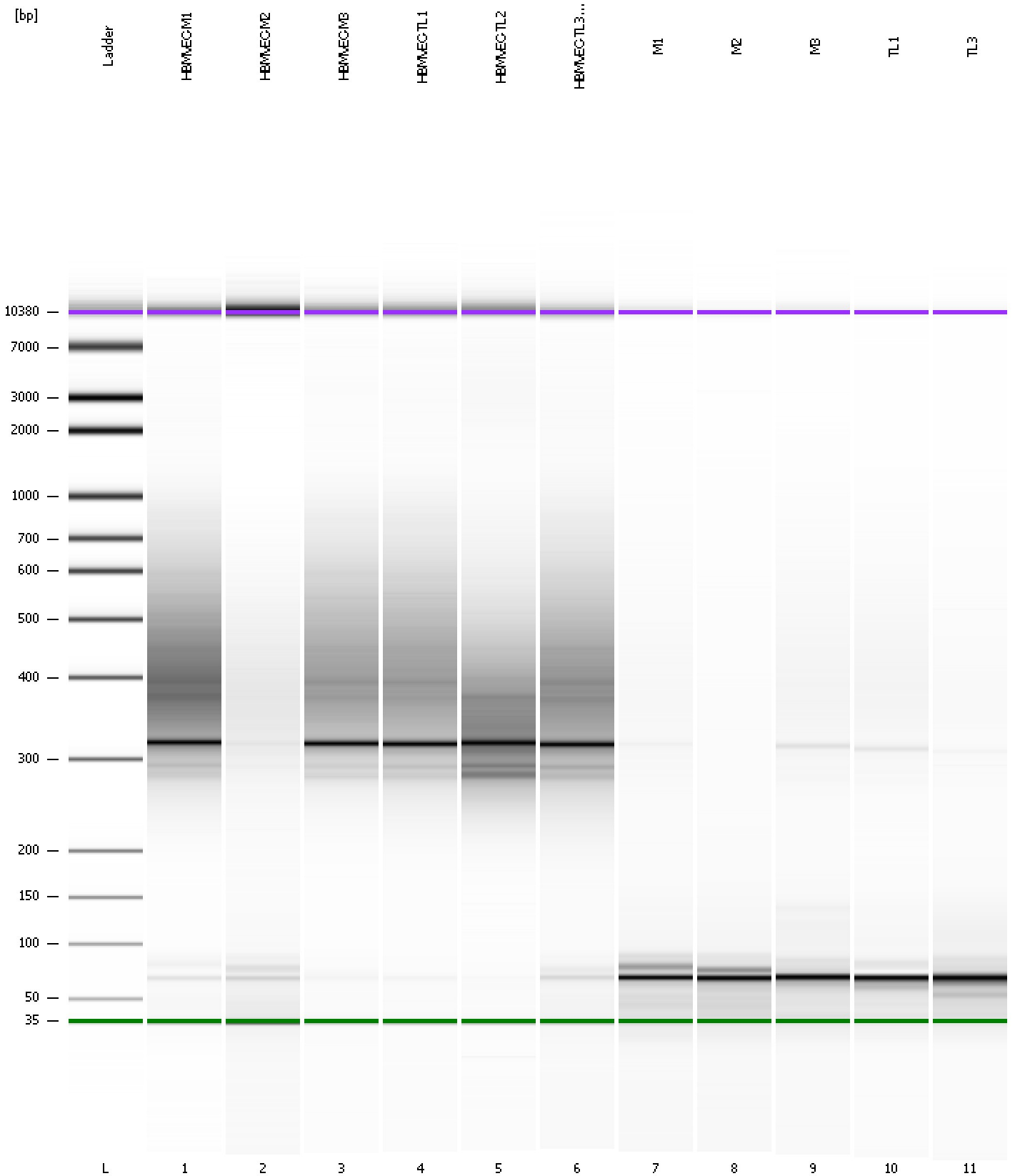
**Region table for sample 11 : TL3**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
200	1,000	396	3,855.7	914.83	62.0	8	27.9

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\Data\2014-08-01\2014-08-01\_006.xad

Created: 8/1/2014 1:53:23 PM  
Modified: 8/1/2014 2:46:15 PM

**Gel Image**





Assay Class: High Sensitivity DNA Assay Created: 8/1/2014 1:53:23 PM  
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-08-01\2014-08-01\_006.xad Modified: 8/1/2014 2:46:15 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		8/1/2014 2:34:42 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\2014-08-01\2014-08-01_006.xad)		Instrument	Run		8/1/2014 1:53:28 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		8/1/2014 1:53:28 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		8/1/2014 1:53:28 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		8/1/2014 1:53:28 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		8/1/2014 1:53:28 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		8/1/2014 1:53:28 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		8/1/2014 1:53:28 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1