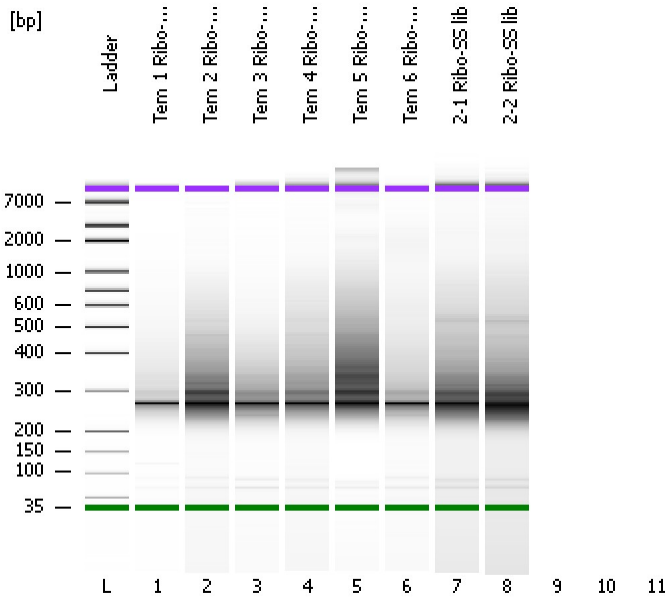


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-19\2014-04-19_001.xad

Created: 4/19/2014 1:09:06 PM
Modified: 4/19/2014 1:47:58 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

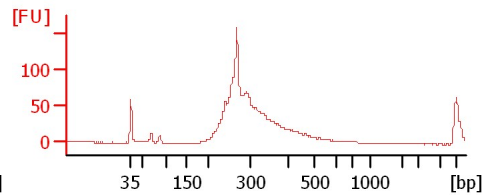
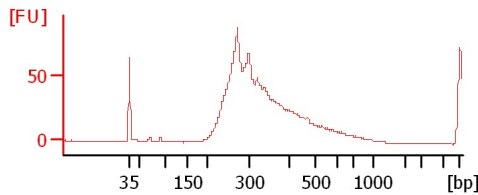
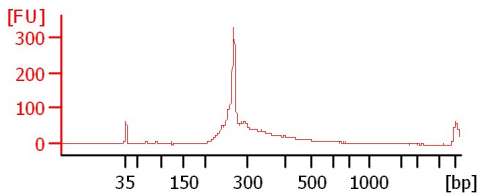
Chip Information:

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

Tem 1 Ribo-SS lib

Tem 2 Ribo-SS lib

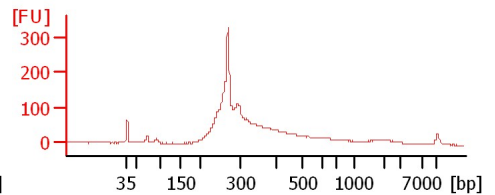
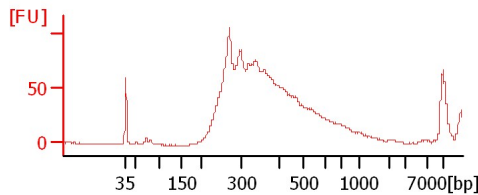
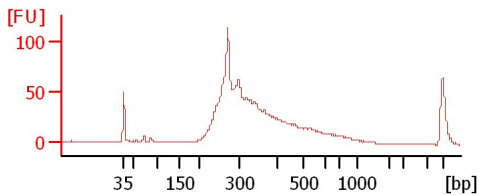
Tem 3 Ribo-SS lib



Tem 4 Ribo-SS lib

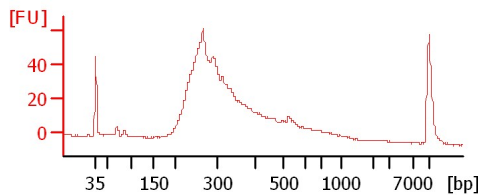
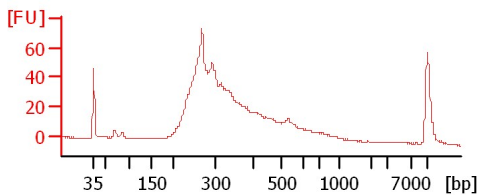
Tem 5 Ribo-SS lib

Tem 6 Ribo-SS lib



2-1 Ribo-SS lib

2-2 Ribo-SS lib



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-19\2014-04-19_001.xad

Created: 4/19/2014 1:09:06 PM
Modified: 4/19/2014 1:47:58 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
Tem 1 Ribo-SS lib		<input type="checkbox"/>	✓			
Tem 2 Ribo-SS lib		<input type="checkbox"/>	✓			
Tem 3 Ribo-SS lib		<input type="checkbox"/>	✓			
Tem 4 Ribo-SS lib		<input type="checkbox"/>	✓			
Tem 5 Ribo-SS lib		<input type="checkbox"/>	✓			
Tem 6 Ribo-SS lib		<input type="checkbox"/>	✓			
2-1 Ribo-SS lib		<input type="checkbox"/>	✓			
2-2 Ribo-SS lib		<input type="checkbox"/>	✓			
		<input type="checkbox"/>				
		<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\2014-04-19\2014-04-19_001.xad

Created: 4/19/2014 1:09:06 PM
 Modified: 4/19/2014 1:47:58 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

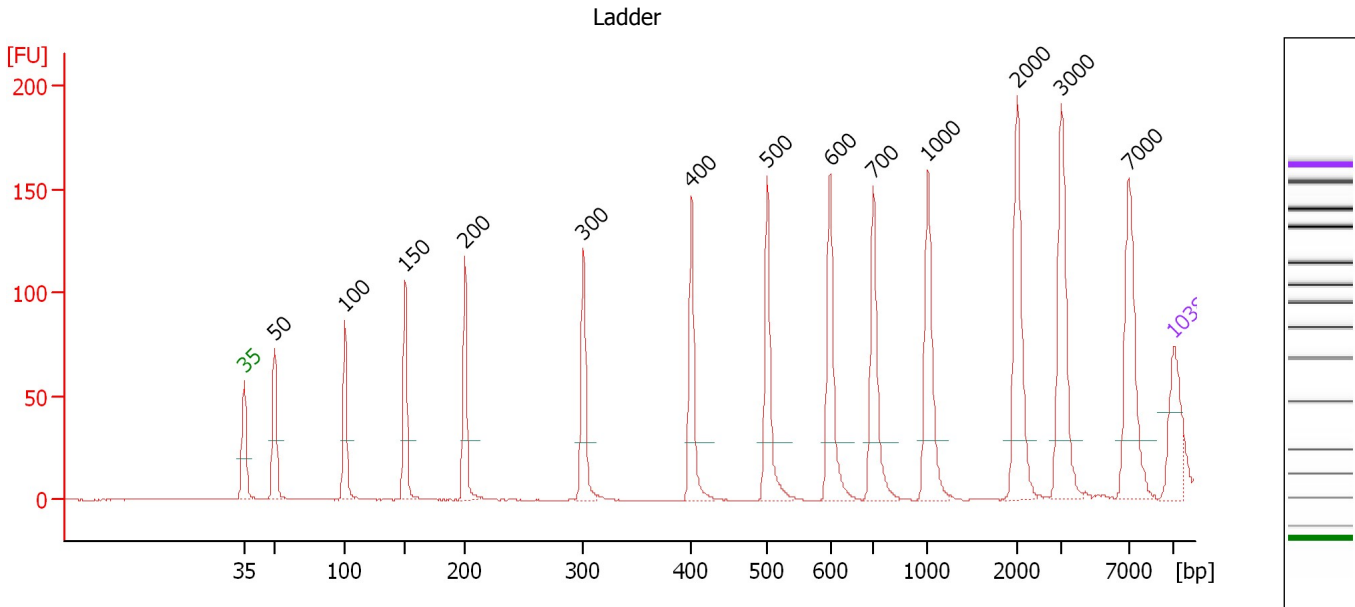
Ladder

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\2014-04-19\2014-04-19_001.xad

Created: 4/19/2014 1:09:06 PM
 Modified: 4/19/2014 1:47:58 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

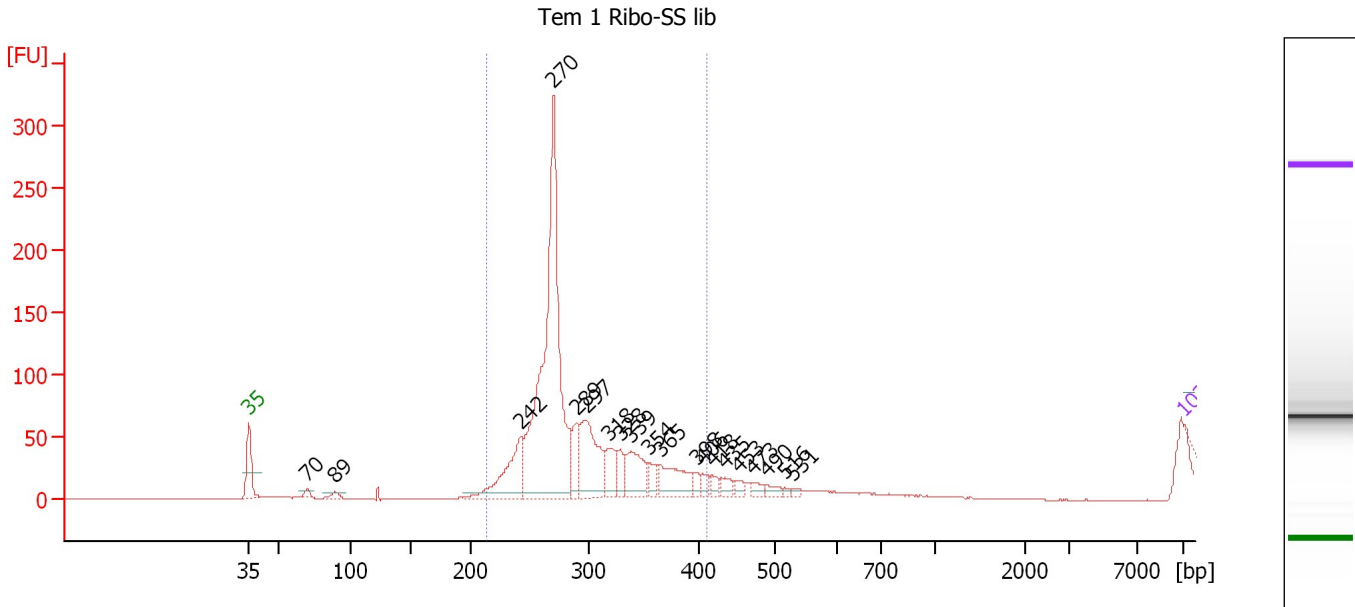
Peak table for Ladder

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	45.29	50	150.00	4,545.5	Ladder Peak
3	50.59	100	150.00	2,272.7	Ladder Peak
4	55.13	150	150.00	1,515.2	Ladder Peak
5	59.63	200	150.00	1,136.4	Ladder Peak
6	68.54	300	150.00	757.6	Ladder Peak
7	76.69	400	150.00	568.2	Ladder Peak
8	82.40	500	150.00	454.5	Ladder Peak
9	87.14	600	150.00	378.8	Ladder Peak
10	90.39	700	150.00	324.7	Ladder Peak
11	94.49	1,000	150.00	227.3	Ladder Peak
12	101.23	2,000	150.00	113.6	Ladder Peak
13	104.57	3,000	150.00	75.8	Ladder Peak
14	109.63	7,000	150.00	32.5	Ladder Peak
15	113.00	10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-19\2014-04-19_001.xad

Created: 4/19/2014 1:09:06 PM
 Modified: 4/19/2014 1:47:58 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : Tem 1 Ribo-SS lib

Number of peaks found: 20 Corr. Area 1: 784.4
 Noise: 0.2

Peak table for sample 1 : Tem 1 Ribo-SS lib

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	47.36	70	1,818.02	39,629.5	
3	49.48	89	2,118.57	35,868.4	
4	63.39	242	25,781.55	161,287.9	
5	65.83	270	130,974.88	736,226.4	
6	67.59	289	10,438.88	54,676.3	
7	68.27	297	27,656.15	141,137.0	
8	70.02	318	9,534.00	45,399.8	
9	70.82	328	6,399.47	29,562.3	
10	71.70	339	14,430.75	64,540.0	
11	72.94	354	4,364.23	18,680.4	
12	73.82	365	14,260.72	59,235.4	
13	76.54	398	2,290.85	8,718.6	
14	77.02	406	2,784.83	10,400.0	
15	77.74	418	2,321.87	8,409.6	
16	78.70	435	3,106.46	10,816.3	
17	79.74	453	2,069.53	6,916.1	
18	80.86	473	2,124.79	6,806.2	
19	81.82	490	2,146.42	6,639.3	
20	83.14	516	688.69	2,023.8	
21	83.86	531	892.13	2,546.6	
22	113.00	10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-19\2014-04-19_001.xad

Created: 4/19/2014 1:09:06 PM
Modified: 4/19/2014 1:47:58 PM

Electropherogram Summary Continued ...

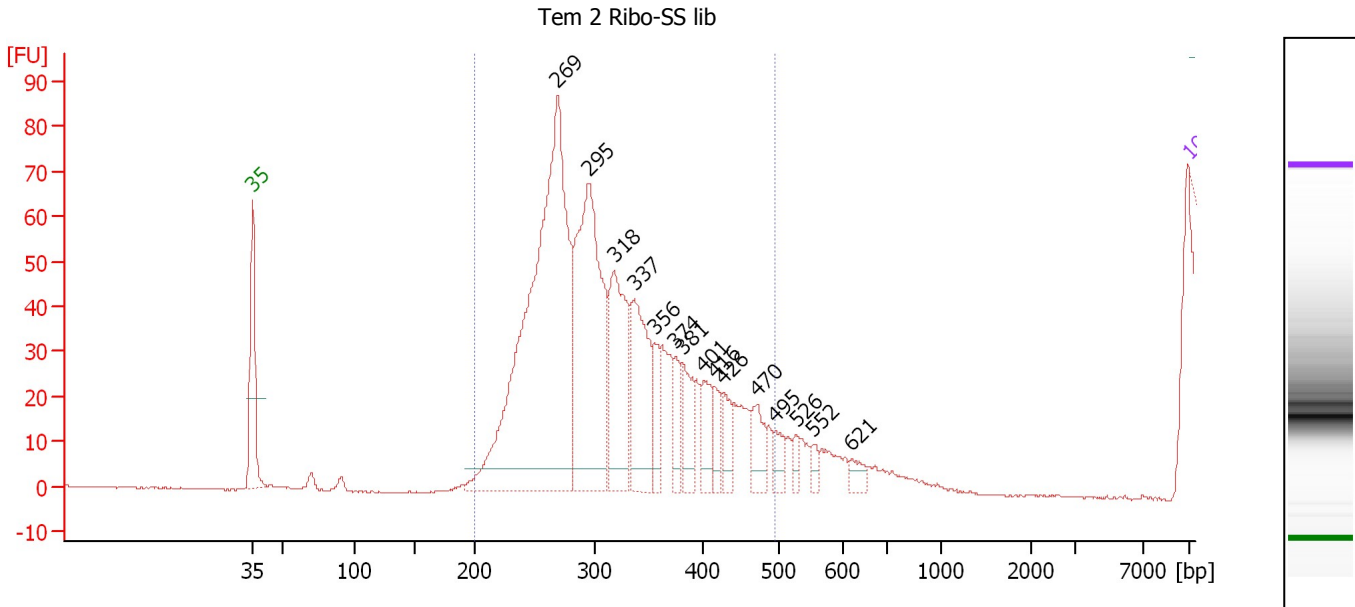
... Region table for sample 1 : Tem 1 Ribo-SS lib

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
213	411	276	842,606.3	152,261.23	784.4	100	8.5

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-19\2014-04-19_001.xad

Created: 4/19/2014 1:09:06 PM
 Modified: 4/19/2014 1:47:58 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : Tem 2 Ribo-SS lib

Number of peaks found: 15 Corr. Area 1: 294.4
 Noise: 0.2

Peak table for sample 2 : Tem 2 Ribo-SS lib

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	65.81	269	8,940,995.00	50,283,876.0	
3	68.13	295	4,378,010.50	22,458,736.0	
4	70.04	318	1,969,496.38	9,371,943.0	
5	71.56	337	1,717,843.63	7,723,480.0	
6	73.07	356	501,656.19	2,137,539.8	
7	74.59	374	430,659.78	1,743,852.8	
8	75.15	381	611,149.31	2,430,216.3	
9	76.74	401	511,660.09	1,933,966.0	
10	77.58	416	290,445.16	1,059,018.0	
11	78.18	426	359,953.53	1,280,138.9	
12	80.69	470	439,514.50	1,416,579.4	
13	82.13	495	253,341.45	775,022.6	
14	83.64	526	141,431.28	407,163.5	
15	84.88	552	137,550.53	377,287.1	
16	87.83	621	163,767.78	399,327.8	
17	113.00	10,380	75.00	10.9	Upper Marker

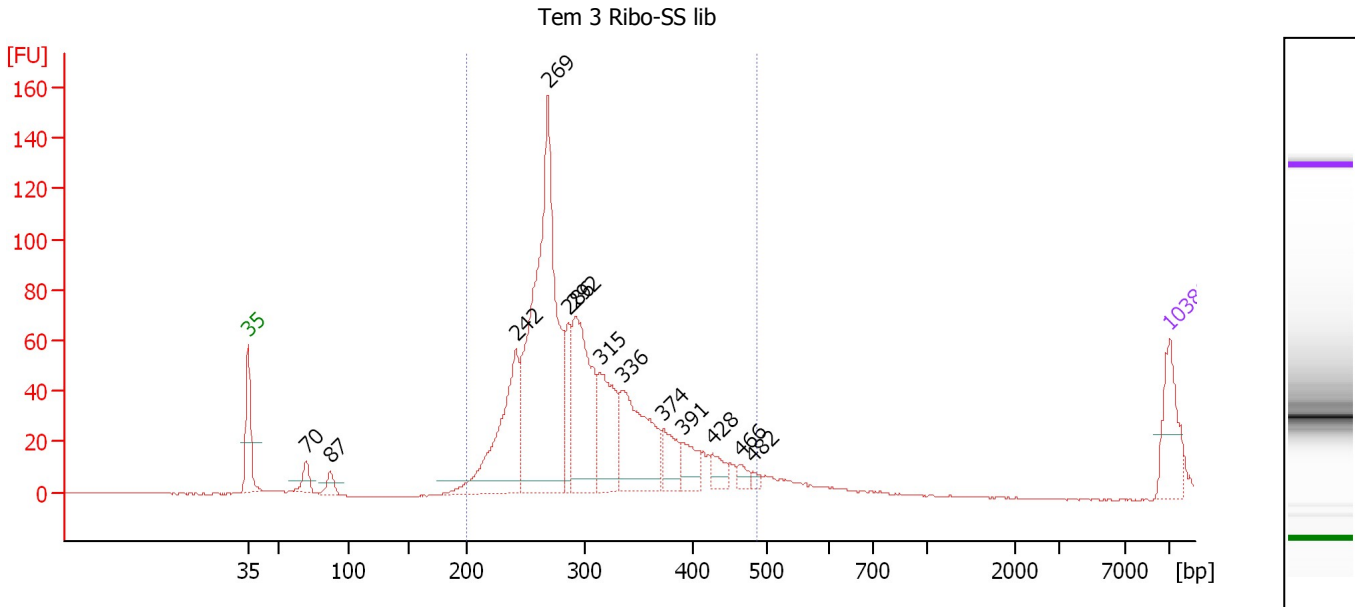
Region table for sample 2 : Tem 2 Ribo-SS lib

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. for Area	% of Total	Size distribution in CV [%]
200	494	280	31,355,818.0	5,757,826.00	294.4	100	8.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-19\2014-04-19_001.xad

Created: 4/19/2014 1:09:06 PM
 Modified: 4/19/2014 1:47:58 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : Tem 3 Ribo-SS lib

Number of peaks found: 13 Corr. Area 1: 1,170.8
 Noise: 0.1

Peak table for sample 3 : Tem 3 Ribo-SS lib

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	47.38	70	38.73	842.3	
3	49.24	87	29.09	505.1	
4	63.34	242	312.77	1,961.5	
5	65.77	269	825.98	4,654.7	
6	67.31	286	93.47	495.0	
7	67.87	292	304.38	1,576.7	
8	69.74	315	180.90	871.1	
9	71.48	336	239.58	1,080.3	
10	74.56	374	64.47	261.4	
11	75.97	391	53.20	206.1	
12	78.28	428	32.67	115.7	
13	80.43	466	17.02	55.4	
14	81.36	482	8.83	27.8	
15	113.00	10,380	75.00	10.9	Upper Marker

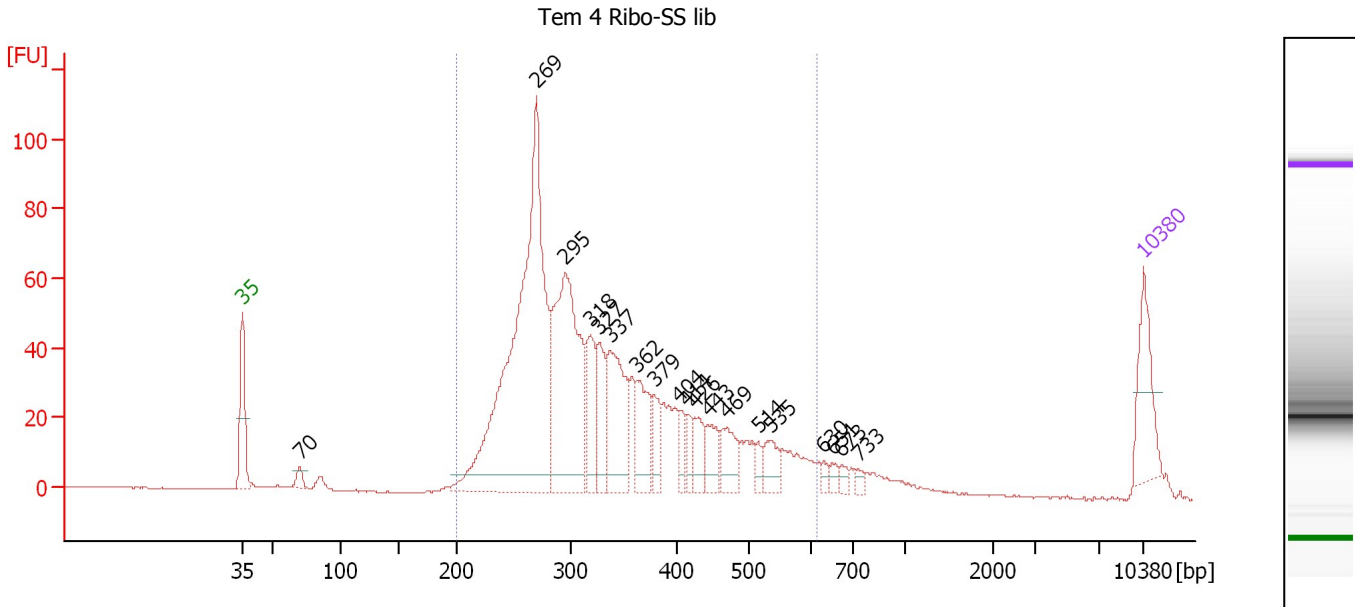
Region table for sample 3 : Tem 3 Ribo-SS lib

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
200	487	299	10,611.8	2,016.42	1,170.8	98	18.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-19\2014-04-19_001.xad

Created: 4/19/2014 1:09:06 PM
 Modified: 4/19/2014 1:47:58 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : Tem 4 Ribo-SS lib

Number of peaks found: 19 Corr. Area 1: 1,221.1
 Noise: 0.1

Peak table for sample 4 : Tem 4 Ribo-SS lib

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	47.43	70	17.60	379.7	
3	65.82	269	876.19	4,926.1	
4	68.06	295	421.58	2,168.3	
5	70.05	318	95.67	455.2	
6	70.75	327	78.91	365.5	
7	71.54	337	171.45	771.4	
8	73.61	362	93.44	390.9	
9	74.98	379	45.90	183.5	
10	76.92	404	28.60	107.3	
11	77.50	414	26.94	98.6	
12	78.17	426	42.49	151.2	
13	79.16	443	47.12	161.1	
14	80.65	469	54.65	176.4	
15	83.05	514	15.81	46.6	
16	84.05	535	38.83	110.0	
17	88.11	630	9.91	23.8	
18	88.81	651	11.48	26.7	
19	89.51	673	10.60	23.9	
20	90.84	733	9.68	20.0	
21	113.00	10,380	75.00	10.9	Upper Marker

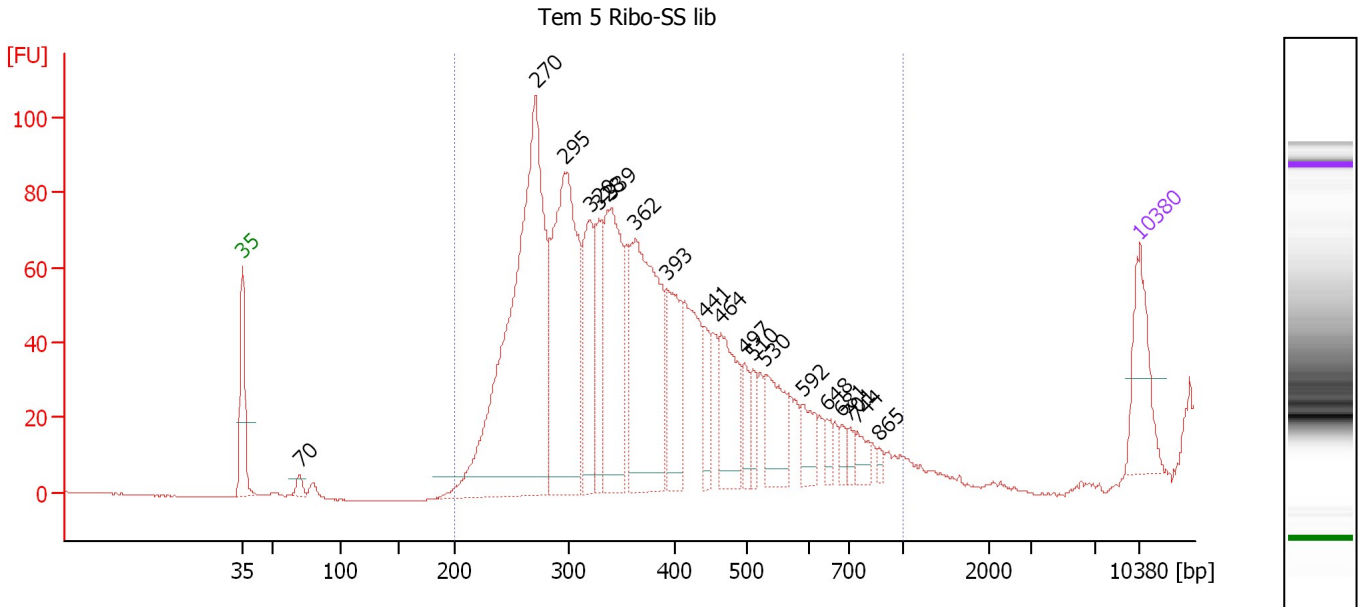
Region table for sample 4 : Tem 4 Ribo-SS lib

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
200	617	338	11,153.3	2,288.03	1,221.1	94	26.5

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-19\2014-04-19_001.xad

Created: 4/19/2014 1:09:06 PM
 Modified: 4/19/2014 1:47:58 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : Tem 5 Ribo-SS lib

Number of peaks found: 19 Corr. Area 1: 1,528.4
 Noise: 0.1

Peak table for sample 5 : Tem 5 Ribo-SS lib

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	47.45	70	15.26	328.4	
3	65.89	270	808.52	4,533.0	
4	68.14	295	443.95	2,276.7	
5	70.13	320	149.96	711.1	
6	70.84	328	104.38	481.8	
7	71.76	339	246.38	1,099.8	
8	73.63	362	340.08	1,421.8	
9	76.09	393	129.30	499.1	
10	79.04	441	47.54	163.3	
11	80.37	464	115.40	376.4	
12	82.20	497	34.12	104.1	
13	82.87	510	27.82	82.7	
14	83.83	530	80.78	230.9	
15	86.74	592	39.47	101.1	
16	88.70	648	15.72	36.8	
17	89.78	681	13.14	29.2	
18	90.40	701	13.37	28.9	
19	90.98	744	20.47	41.7	
20	92.65	865	6.46	11.3	
21	113.00	10,380	75.00	10.9	Upper Marker

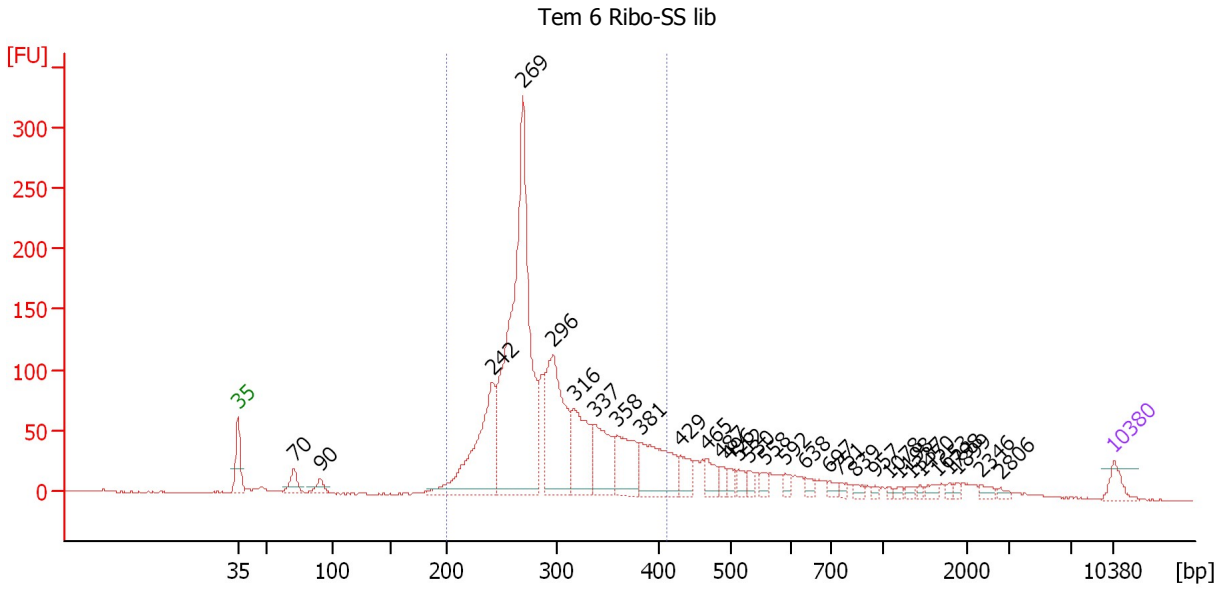
Region table for sample 5 : Tem 5 Ribo-SS lib

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	351	10,529.0	2,260.72	1,528.4	100	24.7

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-19\2014-04-19_001.xad

Created: 4/19/2014 1:09:06 PM
 Modified: 4/19/2014 1:47:58 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : Tem 6 Ribo-SS lib

Number of peaks found: 31 Corr. Area 1: 2,029.3
 Noise: 0.6

Peak table for sample 6 : Tem 6 Ribo-SS lib

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	47.43	70	134.87	2,909.8	
3	49.57	90	82.85	1,389.7	
4	63.33	242	1,079.99	6,773.1	
5	65.76	269	3,095.53	17,445.4	
6	68.15	296	1,075.93	5,514.4	
7	69.86	316	580.62	2,782.8	
8	71.52	337	447.21	2,013.5	
9	73.31	358	418.54	1,768.9	
10	75.14	381	543.94	2,163.3	
11	78.34	429	150.62	532.1	
12	80.43	465	127.47	414.9	
13	81.67	487	58.34	181.4	
14	82.18	496	54.03	165.0	
15	82.99	512	60.52	178.9	
16	83.80	530	46.75	133.8	
17	85.16	558	55.23	149.9	
18	86.74	592	40.91	104.8	
19	88.36	638	44.71	106.3	
20	90.28	697	39.13	85.1	
21	91.09	751	26.87	54.2	
22	92.28	839	30.04	54.3	
23	93.90	957	17.85	28.3	
24	95.01	1,078	13.81	19.4	
25	95.82	1,198	19.62	24.8	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-19\2014-04-19_001.xad

Created: 4/19/2014 1:09:06 PM
 Modified: 4/19/2014 1:47:58 PM

Electropherogram Summary Continued ...

... Peak table for sample 6 : Tem 6 Ribo-SS lib

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
26	96.76	1,337	21.45	24.3	
27	97.52	1,450	14.80	15.5	
28	98.89	1,653	30.65	28.1	
29	99.87	1,798	16.78	14.1	
30	100.55	1,899	18.55	14.8	
31	102.38	2,346	31.04	20.1	
32	103.92	2,806	20.45	11.0	
33	113.00	10,380	75.00	10.9	Upper Marker

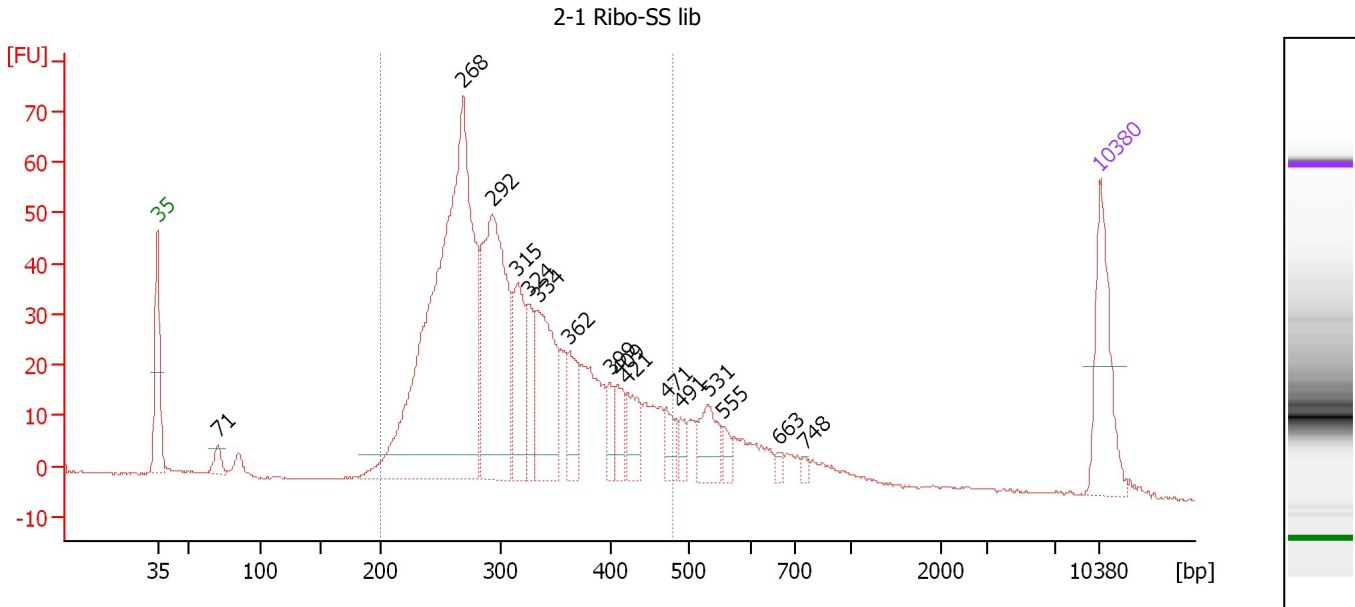
Region table for sample 6 : Tem 6 Ribo-SS lib

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
200	411	292	39,273.8	7,360.55	2,029.3	76	16.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-19\2014-04-19_001.xad

Created: 4/19/2014 1:09:06 PM
 Modified: 4/19/2014 1:47:58 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : 2-1 Ribo-SS lib

Number of peaks found: 16 Corr. Area 1: 946.8
 Noise: 0.2

Peak table for sample 7 : 2-1 Ribo-SS lib

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	47.47	71	16.38	351.7	
3	65.70	268	704.78	3,983.2	
4	67.82	292	284.21	1,475.0	
5	69.73	315	95.91	461.9	
6	70.51	324	50.52	236.1	
7	71.30	334	125.62	570.2	
8	73.60	362	44.46	186.1	
9	76.59	399	21.80	82.9	
10	77.20	409	30.42	112.7	
11	77.89	421	37.47	134.8	
12	80.76	471	24.36	78.3	
13	81.88	491	12.99	40.1	
14	83.88	531	42.93	122.4	
15	85.01	555	13.60	37.1	
16	89.17	663	6.69	15.3	
17	91.04	748	4.69	9.5	
18	113.00	10,380	75.00	10.9	Upper Marker

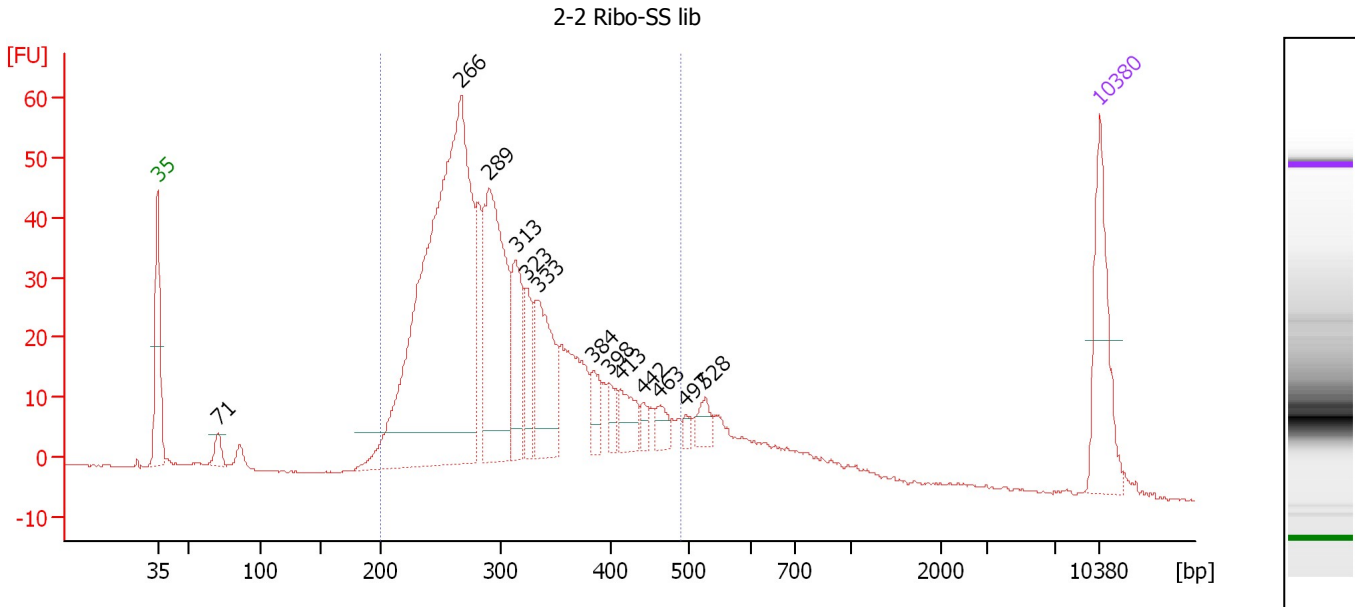
Region table for sample 7 : 2-1 Ribo-SS lib

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
200	480	313	8,351.4	1,638.75	946.8	84	20.4

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-19\2014-04-19_001.xad

Created: 4/19/2014 1:09:06 PM
 Modified: 4/19/2014 1:47:58 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : 2-2 Ribo-SS lib

Number of peaks found: 13 Corr. Area 1: 887.0
 Noise: 0.2

Peak table for sample 8 : 2-2 Ribo-SS lib

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	47.47	71	15.39	330.6	
3	65.55	266	704.74	4,008.4	
4	67.60	289	223.51	1,169.9	
5	69.62	313	74.82	362.0	
6	70.40	323	42.86	201.1	
7	71.24	333	101.46	461.6	
8	75.40	384	24.16	95.3	
9	76.53	398	15.46	58.8	
10	77.41	413	28.45	104.5	
11	79.07	442	9.77	33.5	
12	80.30	463	14.58	47.7	
13	82.22	497	6.36	19.4	
14	83.71	528	16.86	48.4	
15	113.00	10,380	75.00	10.9	Upper Marker

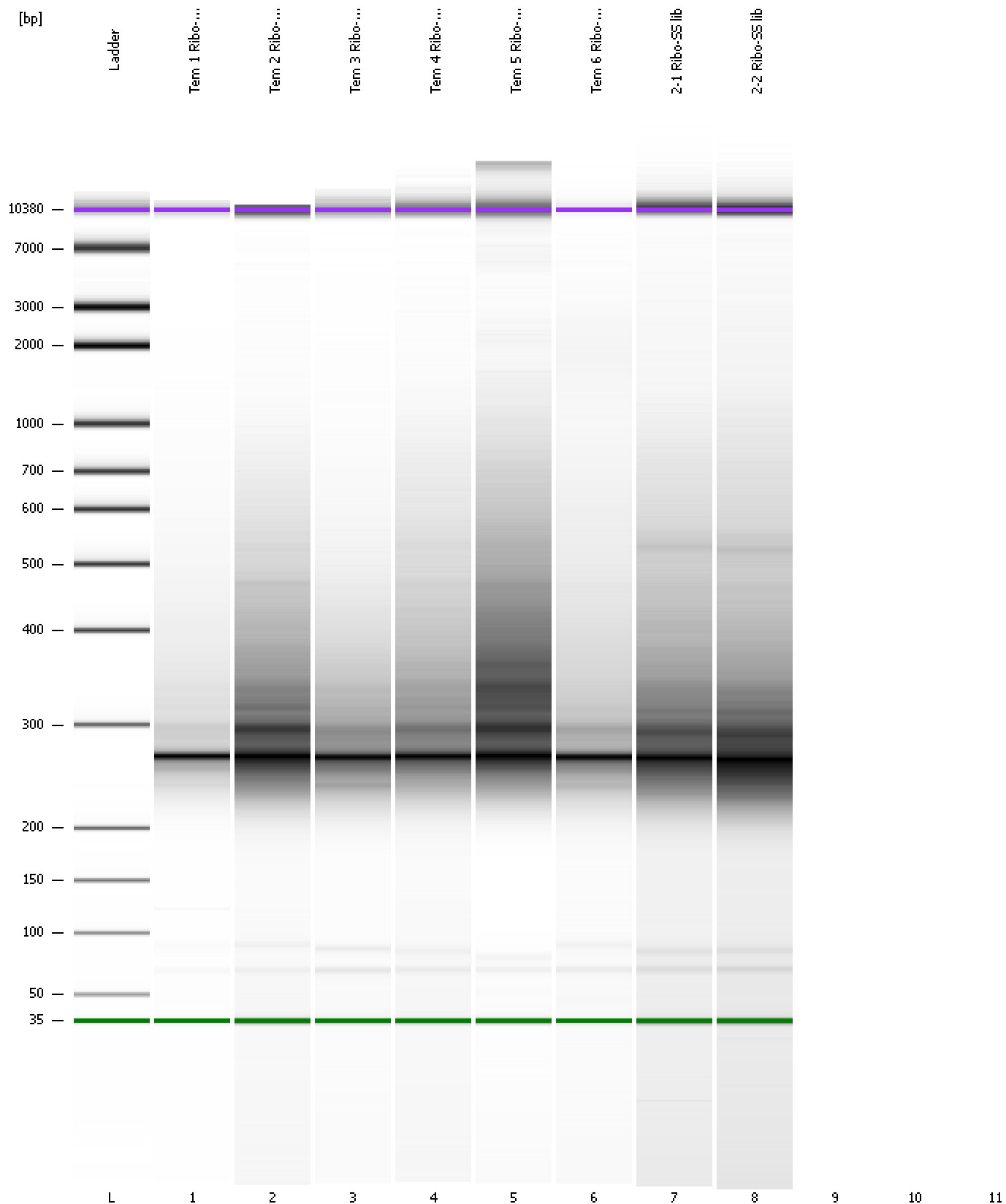
Region table for sample 8 : 2-2 Ribo-SS lib

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
200	490	307	8,412.4	1,617.27	887.0	85	21.3

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-19\2014-04-19_001.xad

Created: 4/19/2014 1:09:06 PM
Modified: 4/19/2014 1:47:58 PM

Gel Image

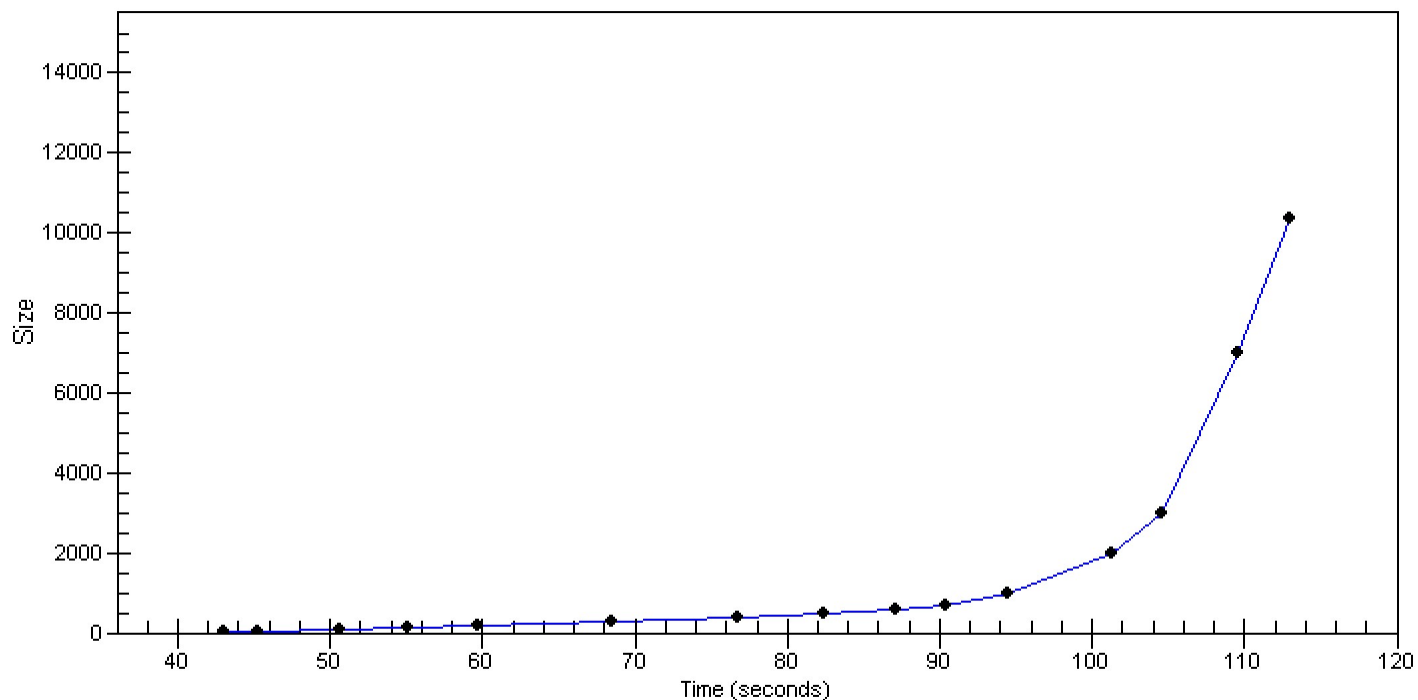


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-19\2014-04-19_001.xad

Created: 4/19/2014 1:09:06 PM
Modified: 4/19/2014 1:47:58 PM

Curves

Standard Curve



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-19\2014-04-19_001.xad

Created: 4/19/2014 1:09:06 PM
Modified: 4/19/2014 1:47:58 PM

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:\...ents and Settings\Bioanalyzer\2014-04-19\2014-04-19_001.xad

Created: 4/19/2014 1:09:06 PM
 Modified: 4/19/2014 1:47:58 PM

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		4/19/2014 1:41:50 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2014-04-19\2014-04-19_001.xad)		Instrument	Run		4/19/2014 1:09:12 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		4/19/2014 1:09:12 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		4/19/2014 1:09:12 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		4/19/2014 1:09:12 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		4/19/2014 1:09:12 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		4/19/2014 1:09:12 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		4/19/2014 1:09:12 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1