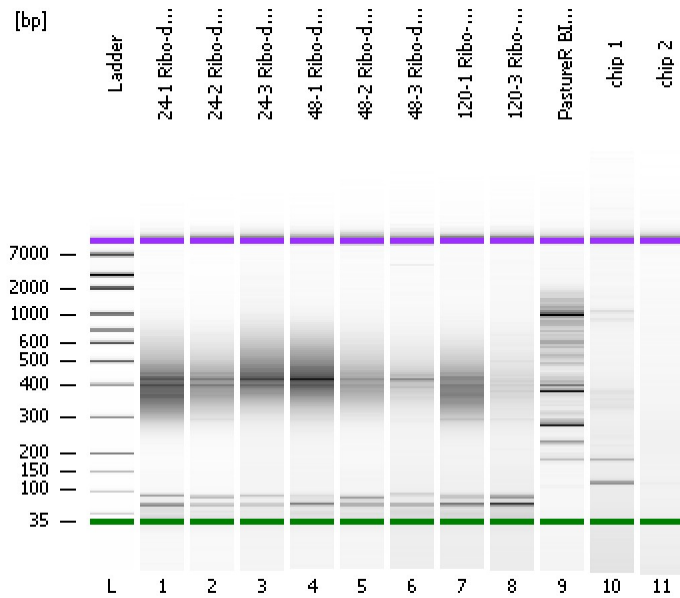


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-23\2014-07-23_004.xad

Created: 7/23/2014 1:15:23 PM
Modified: 7/23/2014 2:01:55 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

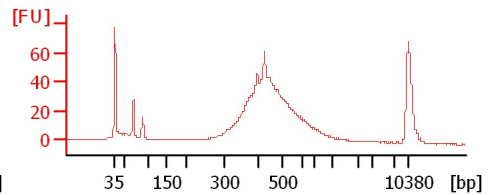
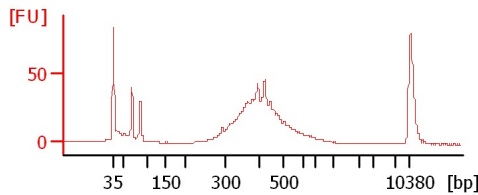
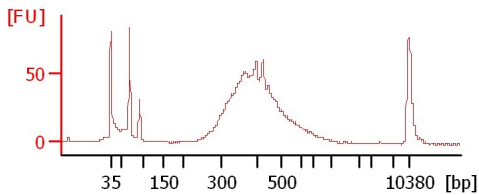
Chip Information:

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

24-1 Ribo-dep/ssRNA lib

24-2 Ribo-dep/ssRNA lib

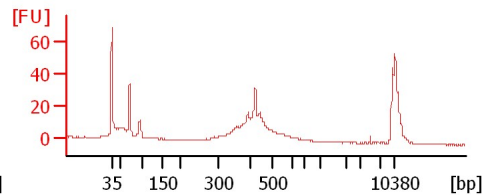
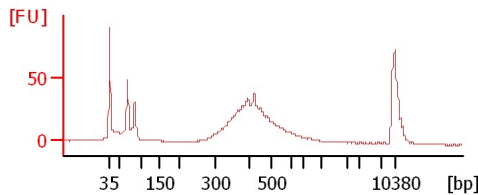
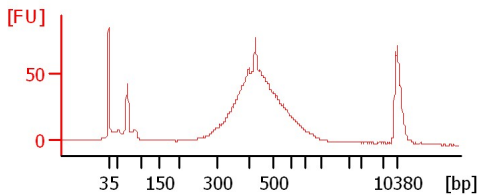
24-3 Ribo-dep/ssRNA lib



48-1 Ribo-dep/ssRNA lib

48-2 Ribo-dep/ssRNA lib

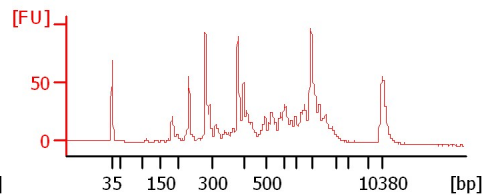
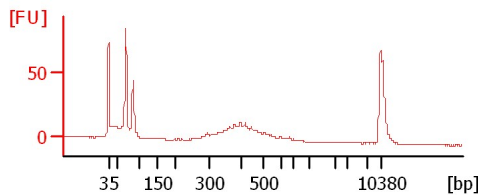
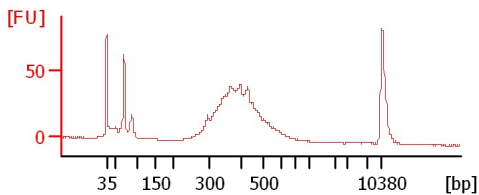
48-3 Ribo-dep/ssRNA lib



120-1 Ribo-dep/ssRNA lib

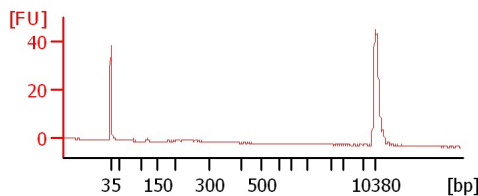
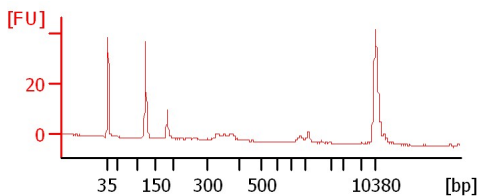
120-3 Ribo-dep/ssRNA lib

PastureR BITS 1 (1:100)



chip 1

chip 2



Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-23\2014-07-23_004.xad

Created: 7/23/2014 1:15:23 PM
Modified: 7/23/2014 2:01:55 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
24-1 Ribo-dep/ssRNA lib		<input type="checkbox"/>	✓			
24-2 Ribo-dep/ssRNA lib		<input type="checkbox"/>	✓			
24-3 Ribo-dep/ssRNA lib		<input type="checkbox"/>	✓			
48-1 Ribo-dep/ssRNA lib		<input type="checkbox"/>	✓			
48-2 Ribo-dep/ssRNA lib		<input type="checkbox"/>	✓			
48-3 Ribo-dep/ssRNA lib		<input type="checkbox"/>	✓			
120-1 Ribo-dep/ssRNA lib		<input type="checkbox"/>	✓			
120-3 Ribo-dep/ssRNA lib		<input type="checkbox"/>	✓			
PastureR BITS 1 (1:100)		<input type="checkbox"/>	✓			
chip 1		<input type="checkbox"/>	✓			
chip 2		<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\2014-07-23\2014-07-23_004.xad

Created: 7/23/2014 1:15:23 PM
Modified: 7/23/2014 2:01:55 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

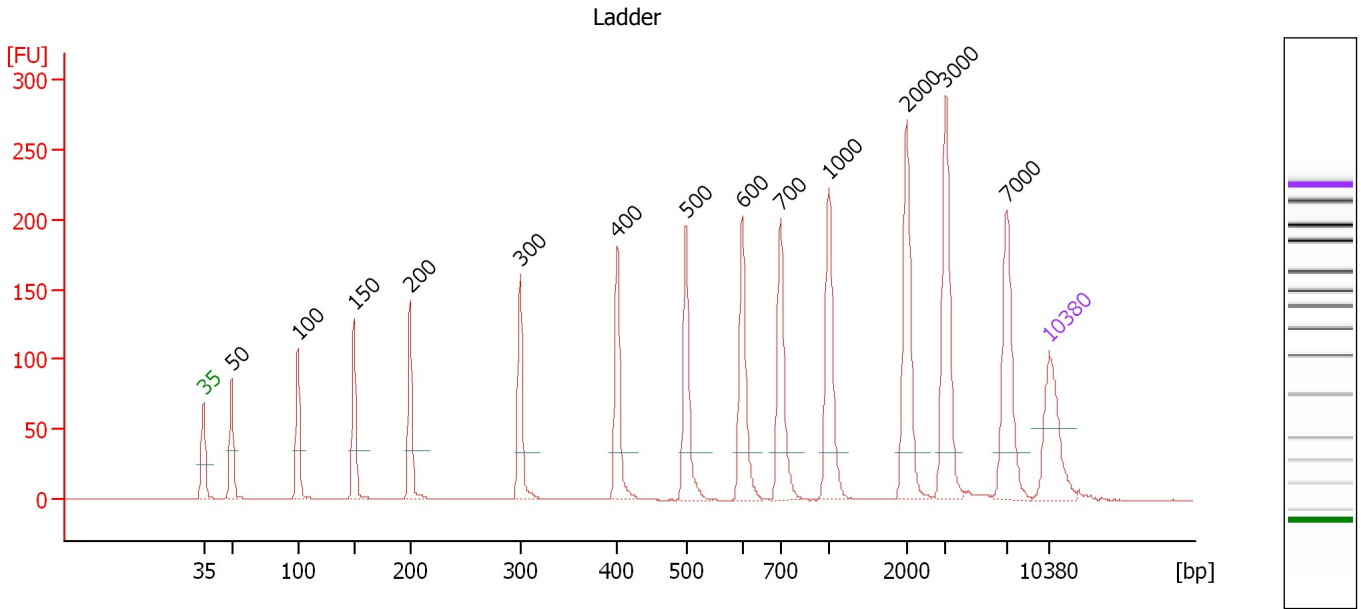
Ladder

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\2014-07-23\2014-07-23_004.xad

Created: 7/23/2014 1:15:23 PM
 Modified: 7/23/2014 2:01:55 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.1

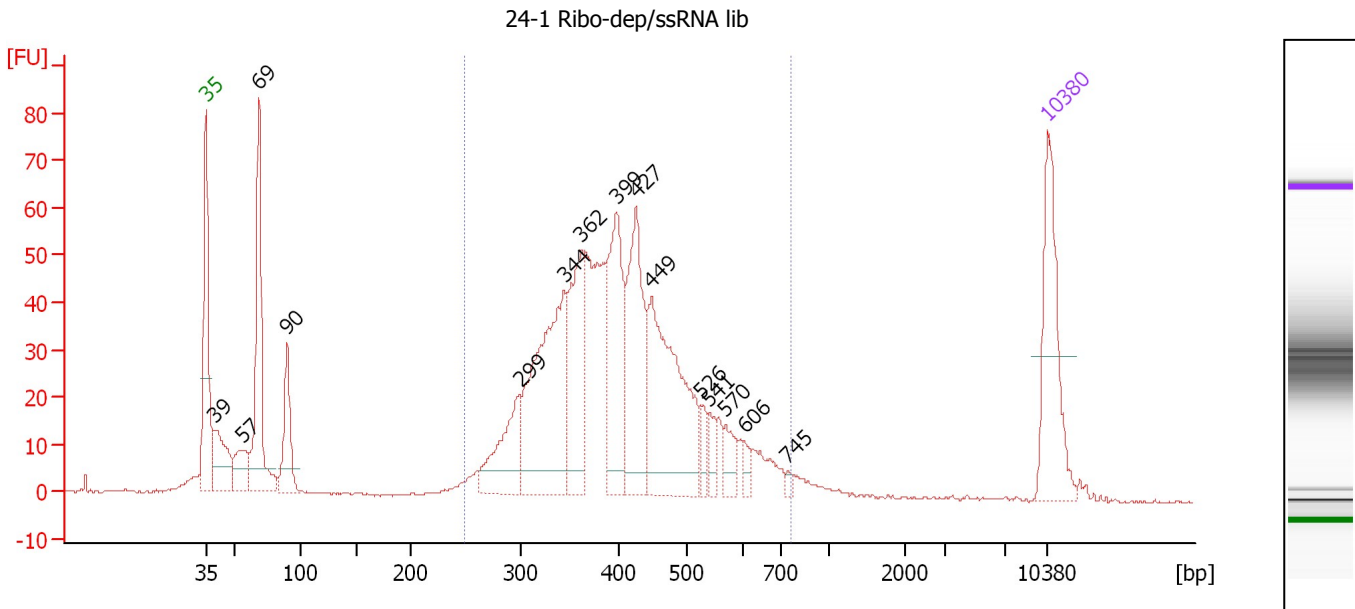
Peak table for Ladder

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\2014-07-23\2014-07-23_004.xad

Created: 7/23/2014 1:15:23 PM
 Modified: 7/23/2014 2:01:55 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : 24-1 Ribo-dep/ssRNA lib

Number of peaks found: 15 Corr. Area 1: 979.0
 Noise: 0.3

Peak table for sample 1 : 24-1 Ribo-dep/ssRNA lib

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	39	70.86	2,734.3	
3	57	36.24	970.2	
4	69	160.89	3,545.8	
5	90	64.04	1,075.4	
6	299	77.94	395.6	
7	344	201.28	886.1	
8	362	108.87	455.2	
9	399	119.33	453.3	
10	427	126.83	449.8	
11	449	177.09	597.6	
12	526	13.88	39.9	
13	541	15.18	42.5	
14	570	19.47	51.7	
15	606	7.31	18.3	
16	745	4.15	8.4	
17	10,380	75.00	10.9	Upper Marker

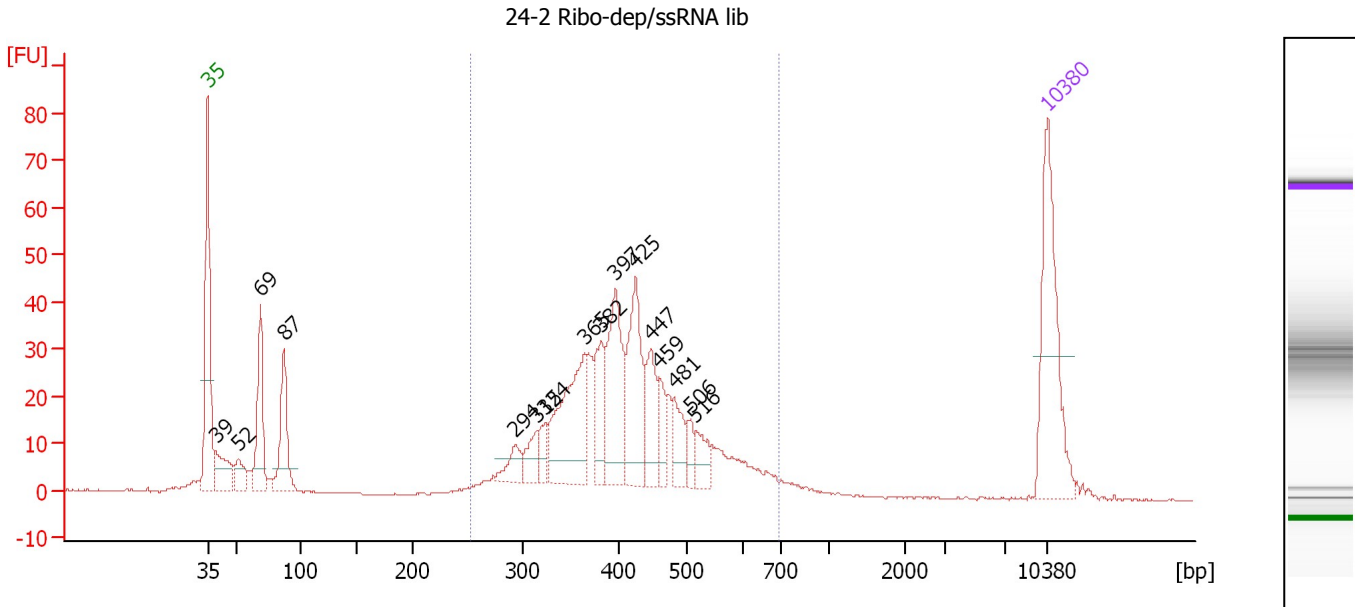
Region table for sample 1 : 24-1 Ribo-dep/ssRNA lib

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
249	764	413	4,247.6	1,089.17	979.0	78	22.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-23\2014-07-23_004.xad

Created: 7/23/2014 1:15:23 PM
 Modified: 7/23/2014 2:01:55 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : 24-2 Ribo-dep/ssRNA lib

Number of peaks found: 16 Corr. Area 1: 577.6
 Noise: 0.1

Peak table for sample 2 : 24-2 Ribo-dep/ssRNA lib

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	39	42.17	1,626.9	
3	52	21.85	639.3	
4	69	68.63	1,510.2	
5	87	62.93	1,099.4	
6	294	17.12	88.2	
7	315	19.49	93.9	
8	324	13.04	61.0	
9	365	94.13	390.7	
10	382	36.34	144.1	
11	397	77.95	297.4	
12	425	72.83	259.7	
13	447	36.57	124.0	
14	459	18.73	61.8	
15	481	24.08	75.8	
16	506	12.01	36.0	
17	516	17.41	51.1	
18	10,380	75.00	10.9	Upper Marker

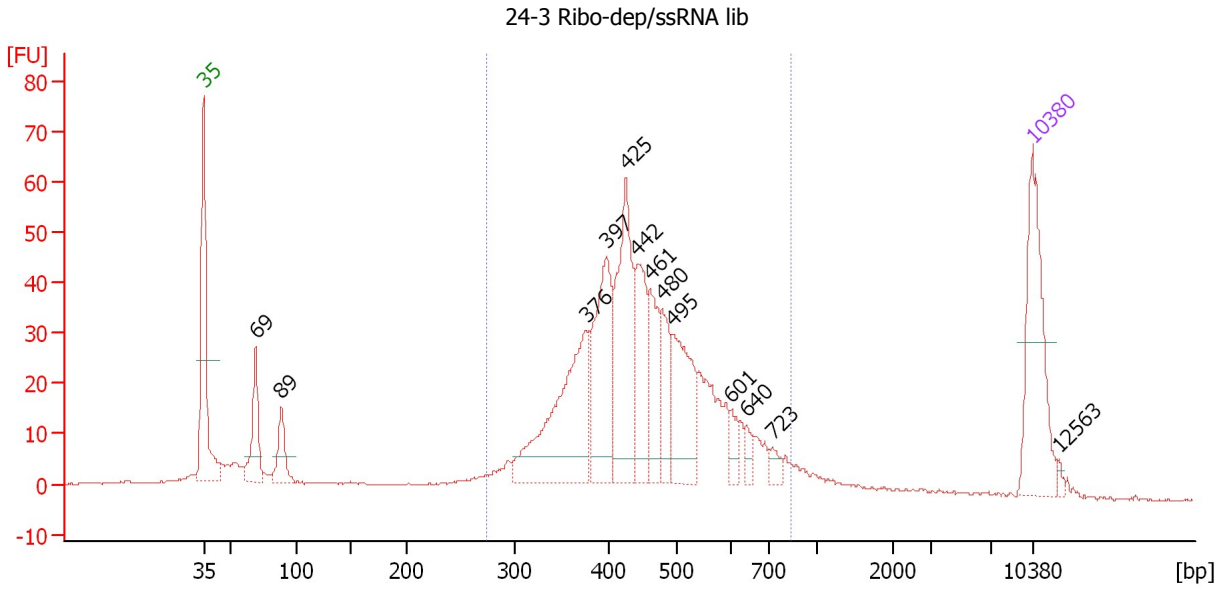
Region table for sample 2 : 24-2 Ribo-dep/ssRNA lib

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
252	696	419	2,275.0	597.55	577.6	77	19.9

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-23\2014-07-23_004.xad

Created: 7/23/2014 1:15:23 PM
 Modified: 7/23/2014 2:01:55 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : 24-3 Ribo-dep/ssRNA lib

Number of peaks found: 13 Corr. Area 1: 750.5
 Noise: 0.2

Peak table for sample 3 : 24-3 Ribo-dep/ssRNA lib

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	69	55.60	1,221.5	
3	89	35.25	602.1	
4	376	153.64	619.6	
5	397	108.19	412.9	
6	425	125.23	446.4	
7	442	66.80	228.8	
8	461	50.24	165.3	
9	480	40.29	127.3	
10	495	76.31	233.4	
11	601	12.95	32.7	
12	640	8.92	21.1	
13	723	8.67	18.2	
14	10,380	75.00	10.9	Upper Marker
15	12,563	0.00	0.0	

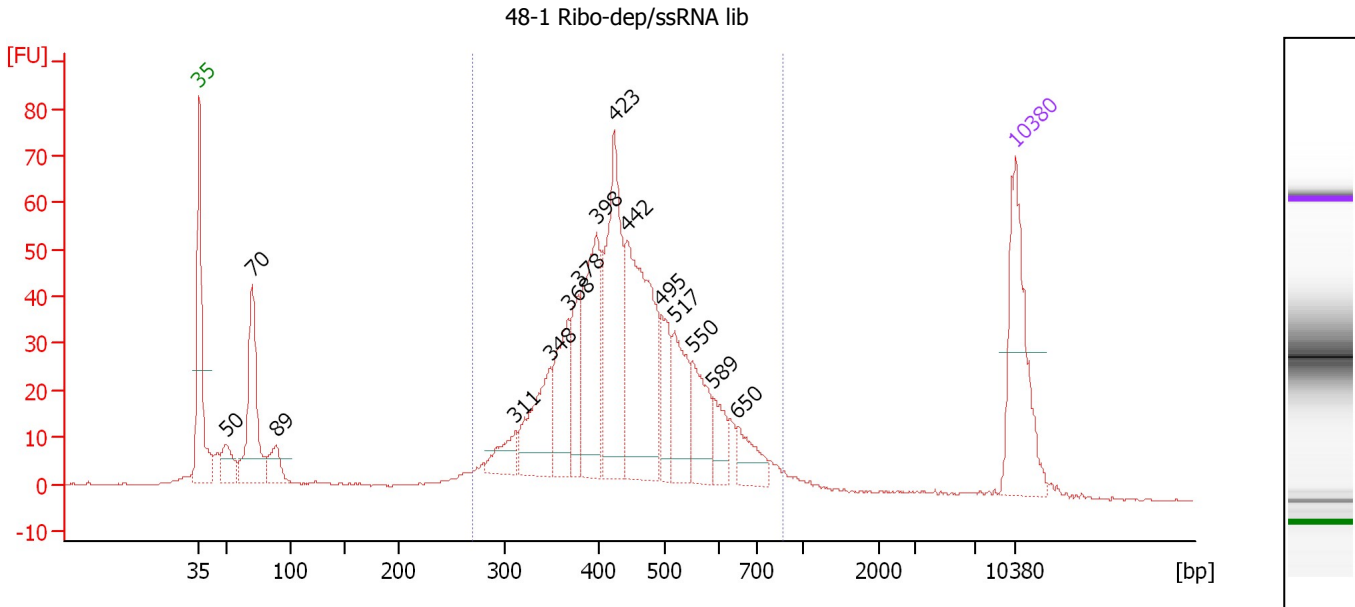
Region table for sample 3 : 24-3 Ribo-dep/ssRNA lib

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
275	837	458	2,893.9	826.24	750.5	81	21.7

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-23\2014-07-23_004.xad

Created: 7/23/2014 1:15:23 PM
 Modified: 7/23/2014 2:01:55 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : 48-1 Ribo-dep/ssRNA lib

Number of peaks found: 15 Corr. Area 1: 939.8
 Noise: 0.2

Peak table for sample 4 : 48-1 Ribo-dep/ssRNA lib

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	50	29.19	885.5	
3	70	118.21	2,559.4	
4	89	25.68	438.2	
5	311	25.79	125.6	
6	348	66.70	290.3	
7	368	62.20	256.5	
8	378	43.44	174.0	
9	398	107.82	410.8	
10	423	134.50	481.5	
11	442	164.32	562.7	
12	495	37.22	114.0	
13	517	52.70	154.4	
14	550	46.93	129.4	
15	589	22.78	58.6	
16	650	24.98	58.2	
17	10,380	75.00	10.9	Upper Marker

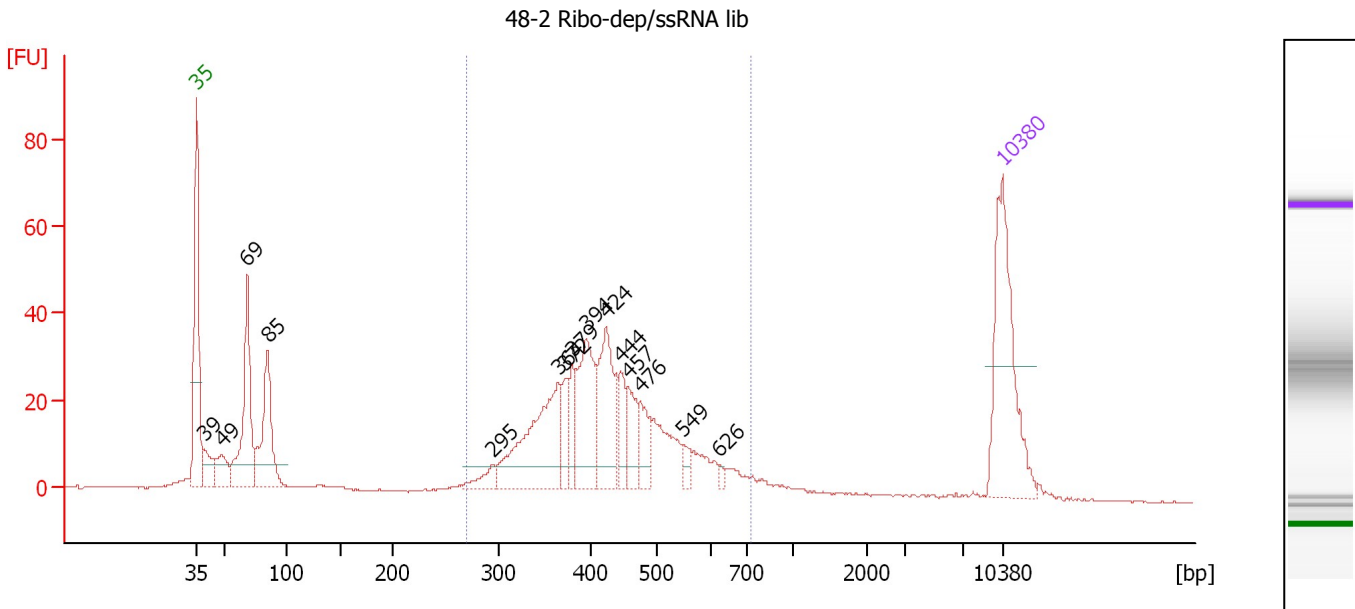
Region table for sample 4 : 48-1 Ribo-dep/ssRNA lib

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
270	865	452	3,290.6	924.18	939.8	81	22.2

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-23\2014-07-23_004.xad

Created: 7/23/2014 1:15:23 PM
 Modified: 7/23/2014 2:01:55 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : 48-2 Ribo-dep/ssRNA lib

Number of peaks found: 15 Corr. Area 1: 519.2
 Noise: 0.2

Peak table for sample 5 : 48-2 Ribo-dep/ssRNA lib

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	39	21.56	834.1	
3	49	22.85	707.1	
4	69	96.29	2,120.1	
5	85	78.69	1,404.7	
6	295	11.32	58.2	
7	364	95.95	399.0	
8	372	18.25	74.2	
9	379	19.45	77.7	
10	394	63.37	243.5	
11	424	60.81	217.4	
12	444	19.62	66.9	
13	457	23.91	79.3	
14	476	21.53	68.6	
15	549	6.88	19.0	
16	626	2.97	7.2	
17	10,380	75.00	10.9	Upper Marker

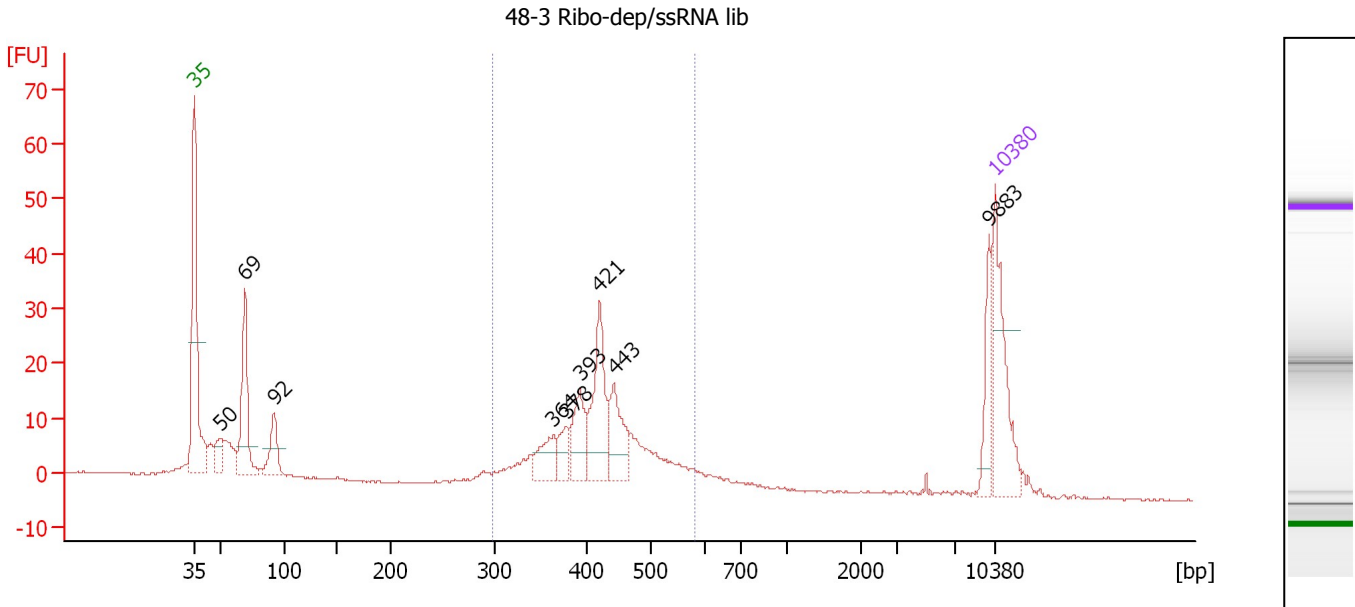
Region table for sample 5 : 48-2 Ribo-dep/ssRNA lib

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
270	724	431	1,686.2	455.64	519.2	68	20.3

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-23\2014-07-23_004.xad

Created: 7/23/2014 1:15:23 PM
 Modified: 7/23/2014 2:01:55 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : 48-3 Ribo-dep/ssRNA lib

Number of peaks found: 9 Corr. Area 1: 200.5
 Noise: 0.2

Peak table for sample 6 : 48-3 Ribo-dep/ssRNA lib

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	50	26.05	790.3	
3	69	111.79	2,466.2	
4	92	45.01	740.4	
5	364	34.48	143.4	
6	378	24.14	96.7	
7	393	47.39	182.5	
8	421	84.29	303.4	
9	443	54.05	184.8	
10	9,883	33.85	5.2	
11	10,380	75.00	10.9	Upper Marker

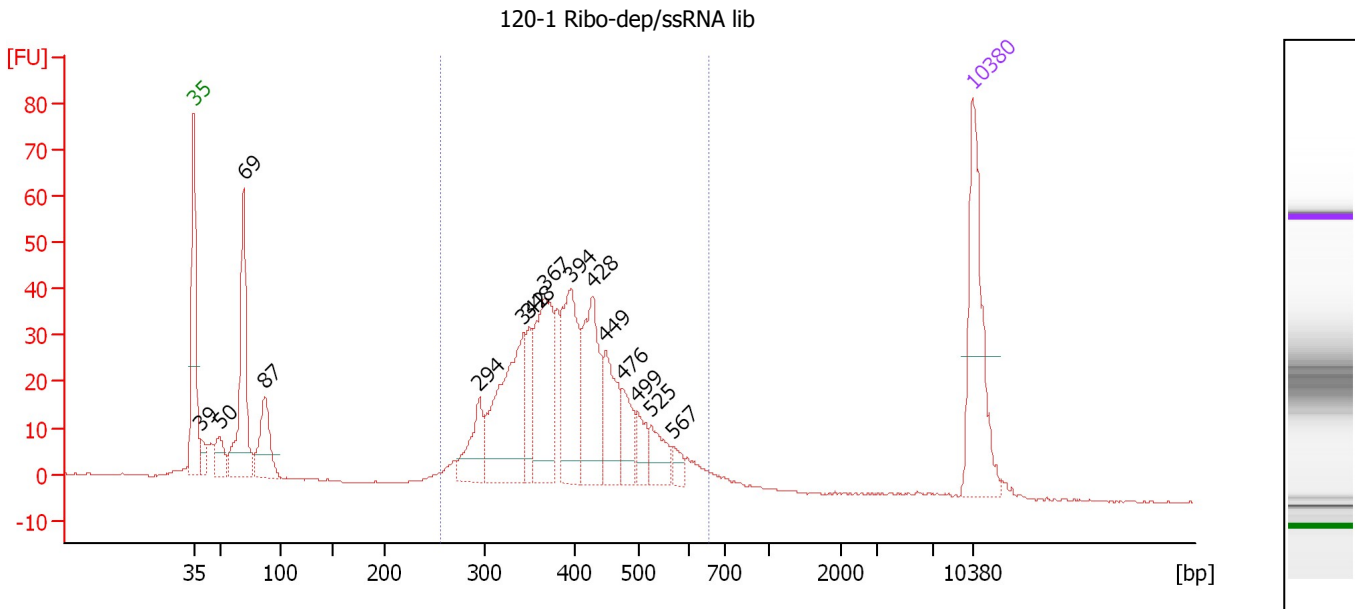
Region table for sample 6 : 48-3 Ribo-dep/ssRNA lib

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
298	583	423	1,323.3	360.95	200.5	57	13.9

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-23\2014-07-23_004.xad

Created: 7/23/2014 1:15:23 PM
 Modified: 7/23/2014 2:01:55 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : 120-1 Ribo-dep/ssRNA lib

Number of peaks found: 15 Corr. Area 1: 667.5
 Noise: 0.2

Peak table for sample 7 : 120-1 Ribo-dep/ssRNA lib

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	39	16.09	620.1	
3	50	25.63	780.5	
4	69	131.23	2,866.4	
5	87	55.78	972.8	
6	294	40.94	211.1	
7	342	125.12	553.5	
8	348	30.05	130.7	
9	367	102.00	421.1	
10	394	95.92	368.5	
11	428	85.29	301.7	
12	449	49.93	168.6	
13	476	26.93	85.7	
14	499	18.52	56.2	
15	525	23.38	67.5	
16	567	9.17	24.5	
17	10,380	75.00	10.9	Upper Marker

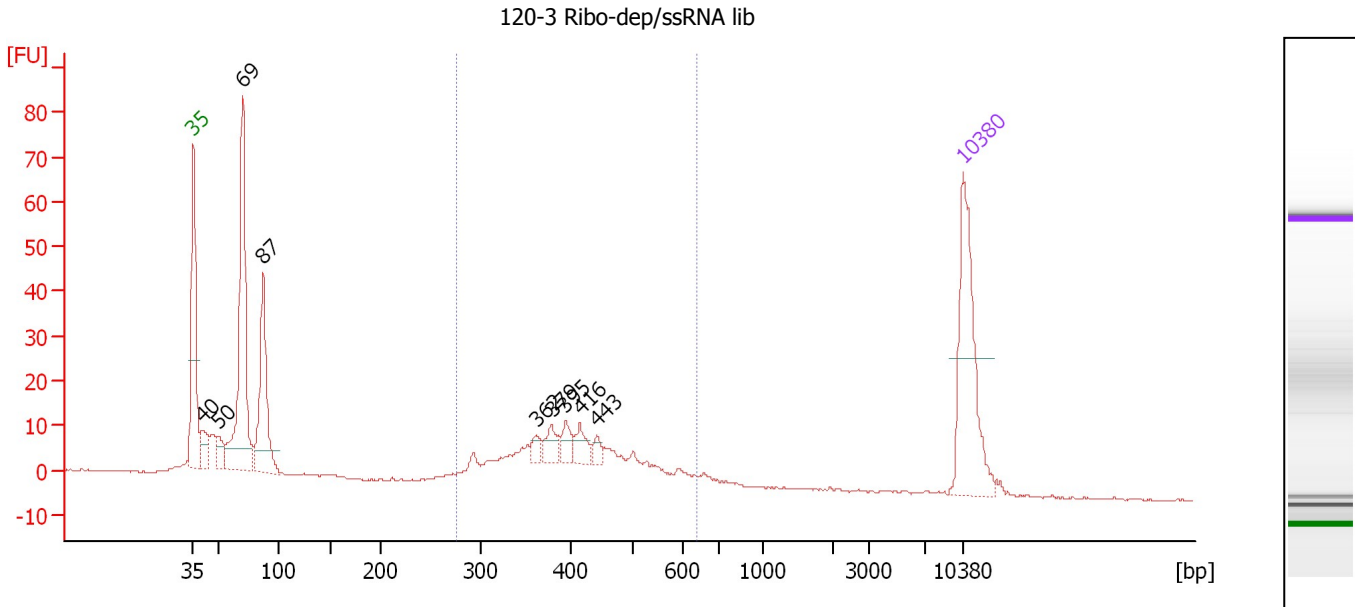
Region table for sample 7 : 120-1 Ribo-dep/ssRNA lib

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
255	654	402	2,709.3	685.43	667.5	76	19.2

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-23\2014-07-23_004.xad

Created: 7/23/2014 1:15:23 PM
 Modified: 7/23/2014 2:01:55 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : 120-3 Ribo-dep/ssRNA lib

Number of peaks found: 9 Corr. Area 1: 190.6
 Noise: 0.1

Peak table for sample 8 : 120-3 Ribo-dep/ssRNA lib

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	40	24.27	919.9	
3	50	14.24	434.9	
4	69	192.42	4,200.7	
5	87	103.44	1,808.0	
6	362	7.92	33.2	
7	379	13.95	55.7	
8	395	11.27	43.2	
9	416	14.38	52.3	
10	443	6.49	22.2	
11	10,380	75.00	10.9	Upper Marker

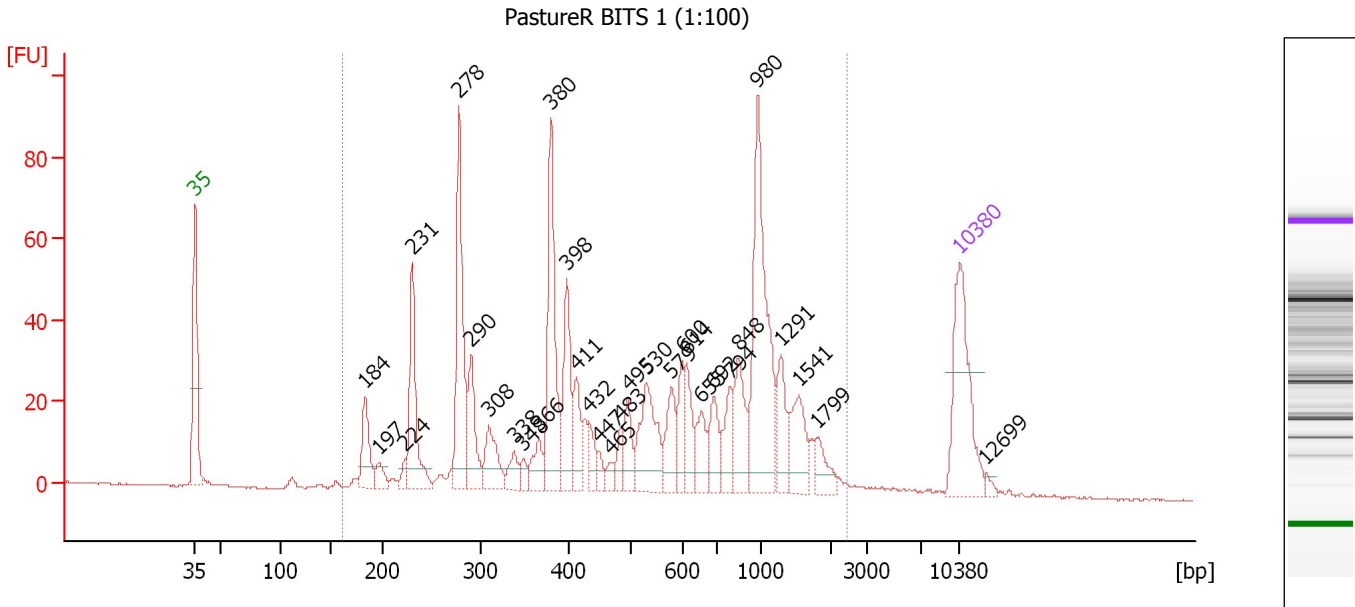
Region table for sample 8 : 120-3 Ribo-dep/ssRNA lib

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/µl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
276	636	415	787.5	205.62	190.6	41	19.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-23\2014-07-23_004.xad

Created: 7/23/2014 1:15:23 PM
 Modified: 7/23/2014 2:01:55 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : PastureR BITS 1 (1:100)

Number of peaks found: 31 Corr. Area 1: 1,040.6
 Noise: 0.2

Peak table for sample 9 : PastureR BITS 1 (1:100)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	184	44.75	369.0	
3	197	14.87	114.4	
4	224	8.76	59.3	
5	231	85.96	565.1	
6	278	130.80	714.1	
7	290	50.05	261.7	
8	308	38.53	189.3	
9	338	16.48	74.0	
10	348	9.40	40.9	
11	366	22.45	92.9	
12	380	112.74	450.0	
13	398	62.16	236.8	
14	411	30.33	111.7	
15	432	16.27	57.1	
16	447	8.07	27.3	
17	465	8.10	26.4	
18	483	12.61	39.6	
19	495	27.10	83.0	
20	530	66.02	188.6	
21	579	32.82	85.9	
22	600	25.59	64.7	
23	614	30.04	74.2	
24	655	25.97	60.1	
25	692	29.46	64.5	
26	794	26.65	50.9	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-23\2014-07-23_004.xad

Created: 7/23/2014 1:15:23 PM
 Modified: 7/23/2014 2:01:55 PM

Electropherogram Summary Continued ...

... Peak table for sample 9 : PastureR BITS 1 (1:100)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
27	848	41.21	73.6	
28	980	143.78	222.4	
29	1,291	30.29	35.5	
30	1,541	36.87	36.3	
31	1,799	17.71	14.9	
32	10,380	75.00	10.9	Upper Marker
33	12,699	0.00	0.0	

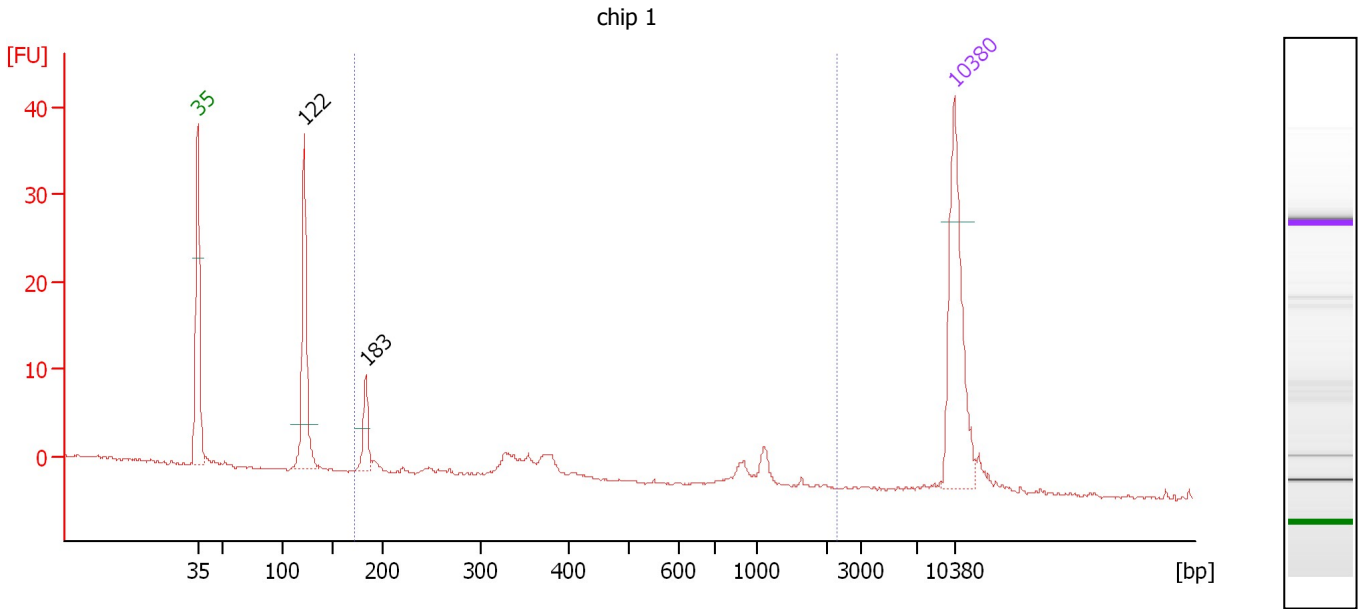
Region table for sample 9 : PastureR BITS 1 (1:100)

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
161	2,460	676	4,593.7	1,254.16	1,040.6	97	62.9

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-23\2014-07-23_004.xad

Created: 7/23/2014 1:15:23 PM
 Modified: 7/23/2014 2:01:55 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : chip 1

Number of peaks found: 2 Corr. Area 1: 26.0
 Noise: 0.2

Peak table for sample 10 : chip 1

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	122	101.70	1,261.4	
3	183	25.29	209.0	
4	10,380	75.00	10.9	Upper Marker

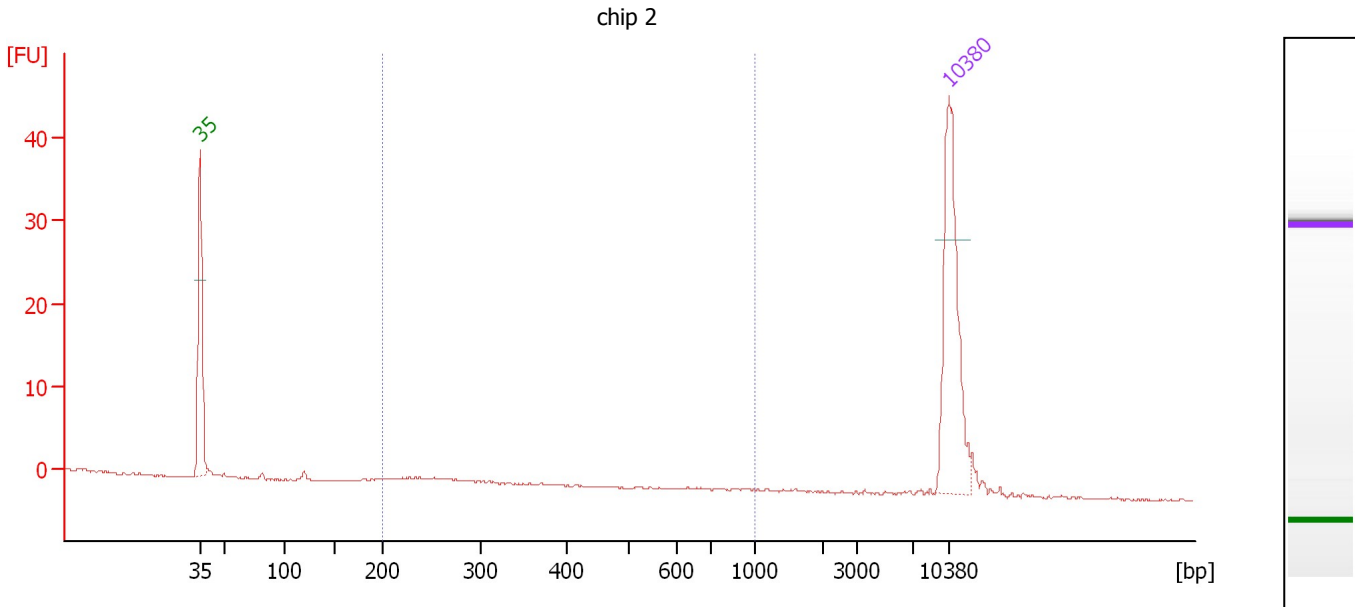
Region table for sample 10 : chip 1

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
173	2,273	502	306.3	56.93	26.0	41	69.2

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-23\2014-07-23_004.xad

Created: 7/23/2014 1:15:23 PM
 Modified: 7/23/2014 2:01:55 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : chip 2

Number of peaks found: 0 Corr. Area 1: 1.9
 Noise: 0.1

Peak table for sample 11 : chip 2

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

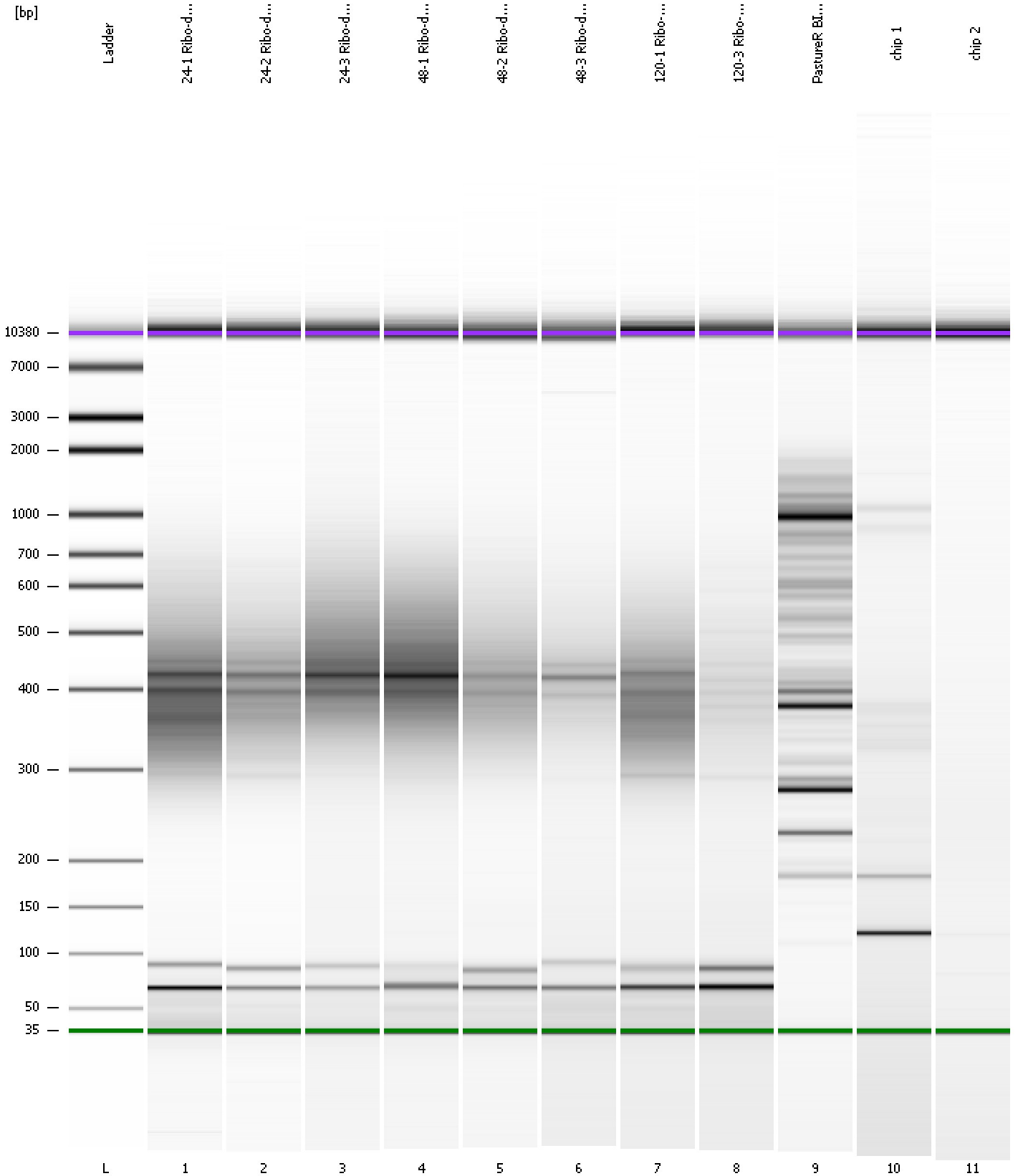
Region table for sample 11 : chip 2

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	252	22.8	3.77	1.9	22	13.5

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-23\2014-07-23_004.xad

Created: 7/23/2014 1:15:23 PM
Modified: 7/23/2014 2:01:55 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-23\2014-07-23_004.xad

Created: 7/23/2014 1:15:23 PM
 Modified: 7/23/2014 2:01:55 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		7/23/2014 1:56:42 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\2014-07-23\2014-07-23_004.xad)		Instrument	Run		7/23/2014 1:15:28 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		7/23/2014 1:15:28 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		7/23/2014 1:15:28 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		7/23/2014 1:15:28 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		7/23/2014 1:15:28 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		7/23/2014 1:15:28 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		7/23/2014 1:15:28 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1