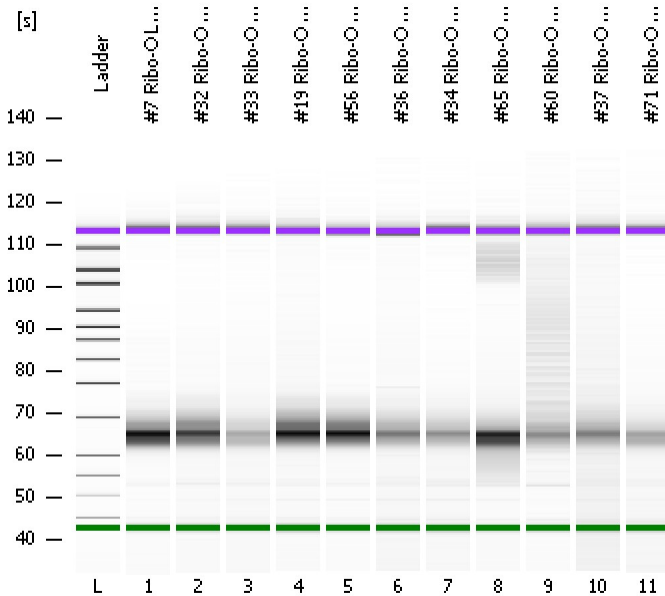


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-14\2012-06-14\_001.xad

Created: 6/14/2012 8:17:22 AM  
Modified: 6/14/2012 9:14:57 AM

### 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

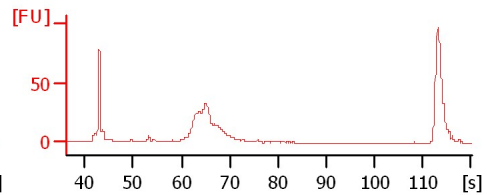
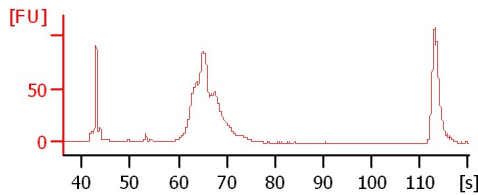
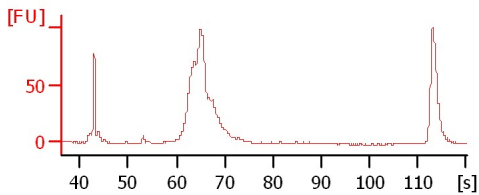
#### Chip Information:

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

#7 Ribo-O Lib 6/13/12 (Kim, H)

#32 Ribo-O Lib 6/13/12 (Kim, H)

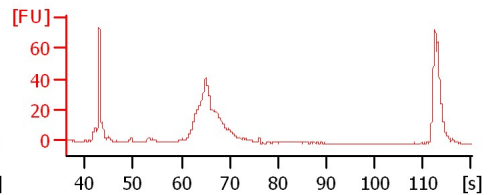
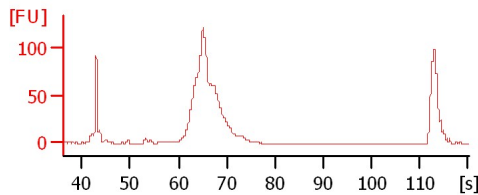
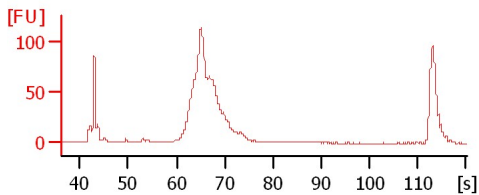
#33 Ribo-O Lib 6/13/12 (Kim, H)



#19 Ribo-O Lib 6/13/12 (Kim, H)

#56 Ribo-O Lib 6/13/12 (Kim, H)

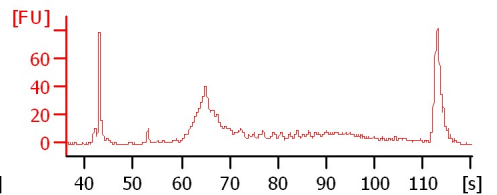
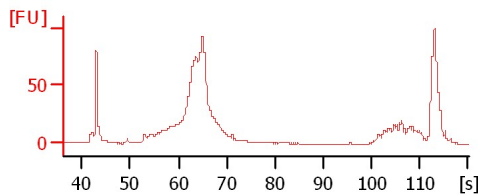
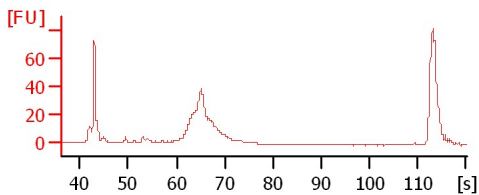
#36 Ribo-O Lib 6/13/12 (Kim, H)



#34 Ribo-O Lib 6/13/12 (Kim, H)

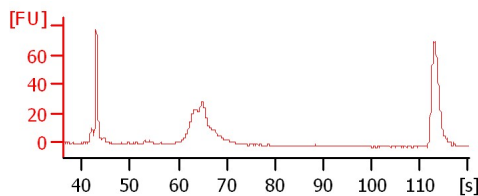
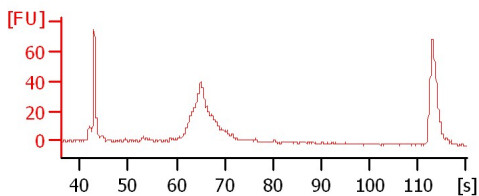
#65 Ribo-O Lib 6/13/12 (Kim, H)

#60 Ribo-O Lib 6/13/12 (Kim, H)



#37 Ribo-O Lib 6/13/12 (Kim, H)

#71 Ribo-O Lib 6/13/12 (Kim, H)



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-14\2012-06-14\_001.xad

Created: 6/14/2012 8:17:22 AM  
Modified: 6/14/2012 9:14:57 AM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
#7 Ribo-O Lib 6/13/12 (Kim, H)		<input type="checkbox"/>	✓			
#32 Ribo-O Lib 6/13/12 (Kim, H)		<input type="checkbox"/>	✓			
#33 Ribo-O Lib 6/13/12 (Kim, H)		<input type="checkbox"/>	✓			
#19 Ribo-O Lib 6/13/12 (Kim, H)		<input type="checkbox"/>	✓			
#56 Ribo-O Lib 6/13/12 (Kim, H)		<input type="checkbox"/>	✓			
#36 Ribo-O Lib 6/13/12 (Kim, H)		<input type="checkbox"/>	✓			
#34 Ribo-O Lib 6/13/12 (Kim, H)		<input type="checkbox"/>	✓			
#65 Ribo-O Lib 6/13/12 (Kim, H)		<input type="checkbox"/>	✓			
#60 Ribo-O Lib 6/13/12 (Kim, H)		<input type="checkbox"/>	✓			
#37 Ribo-O Lib 6/13/12 (Kim, H)		<input type="checkbox"/>	✓			
#71 Ribo-O Lib 6/13/12 (Kim, H)		<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\2012-06-14\2012-06-14\_001.xad

Created: 6/14/2012 8:17:22 AM  
Modified: 6/14/2012 9:14:57 AM

**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] : 20  
Area Threshold : 0.1  
Width Threshold [s] : 0.6  
Baseline Plateau [s] : 0.5

**Filter Settings**

Filter Width [s] : 0.5  
Polynomial Order : 4

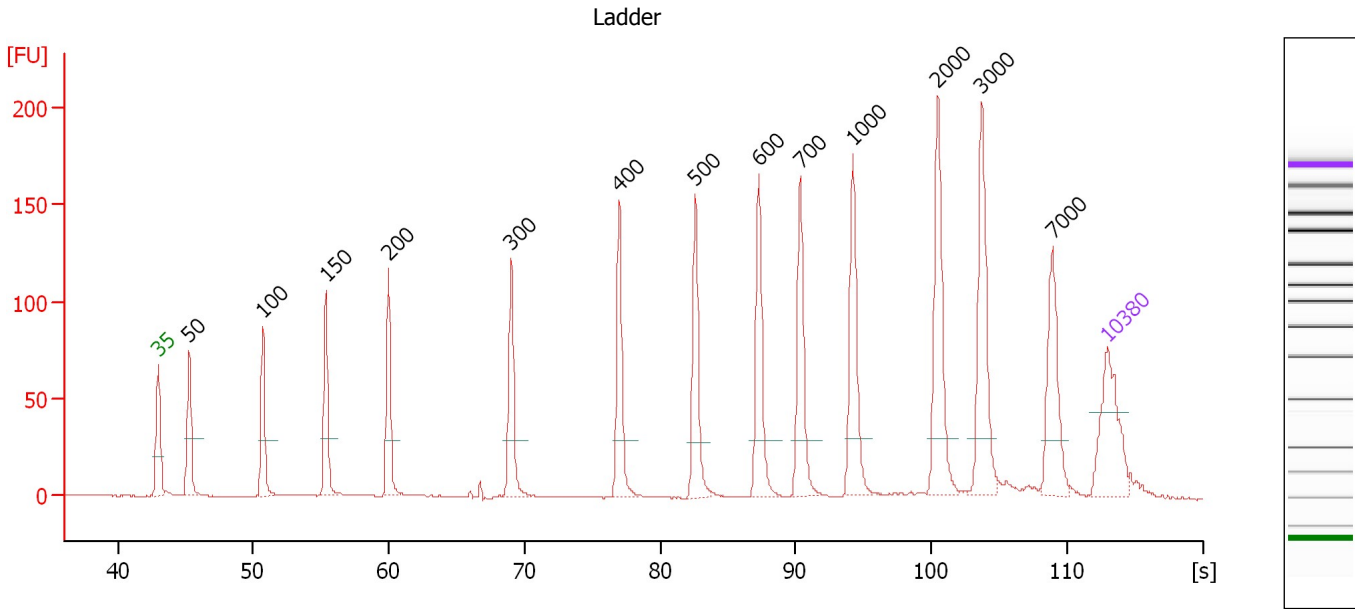
**Ladder**

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\2012-06-14\2012-06-14\_001.xad

Created: 6/14/2012 8:17:22 AM  
 Modified: 6/14/2012 9:14:57 AM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.1

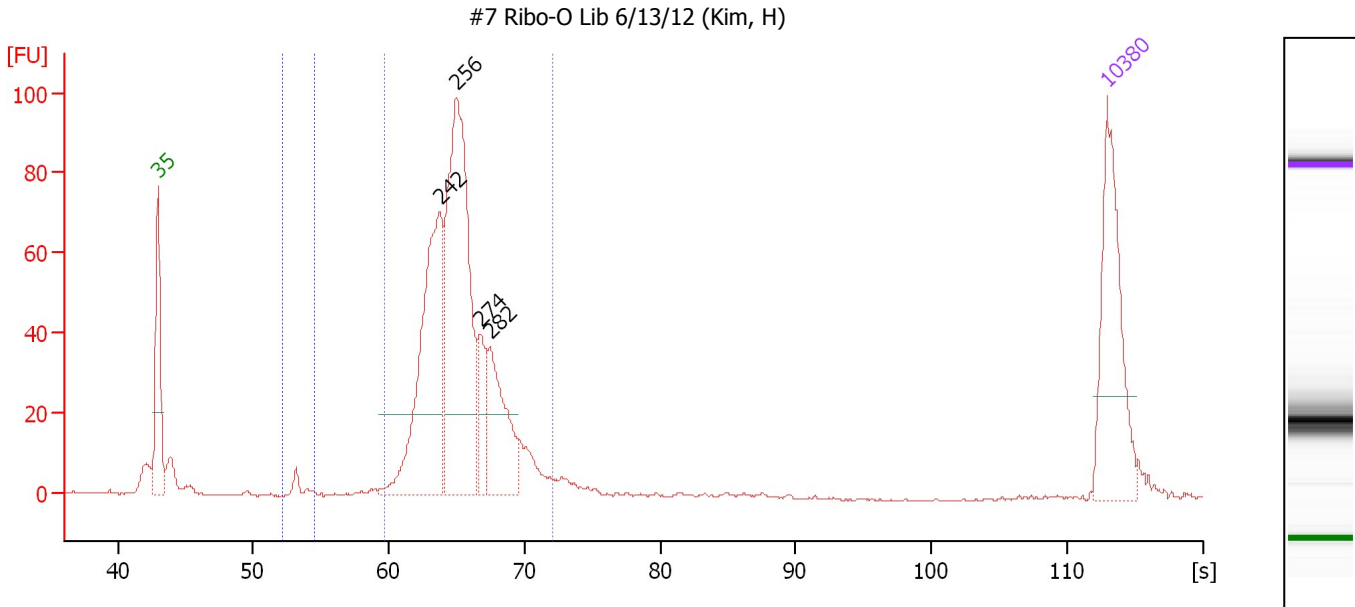
**Peak table for Ladder**

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\2012-06-14\2012-06-14\_001.xad

Created: 6/14/2012 8:17:22 AM  
 Modified: 6/14/2012 9:14:57 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : #7 Ribo-O Lib 6/13/12 (Kim, H)**

Number of peaks found: 4                      Corr. Area 1: 702.8  
 Noise: 0.2                                      Corr. Area 2: 6.4

**Peak table for sample 1 : #7 Ribo-O Lib 6/13/12 (Kim, H)**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	242	197.11	1,234.0	
3	256	263.19	1,559.8	
4	274	35.79	197.6	
5	282	76.27	409.1	
6	10,380	75.00	10.9	Upper Marker

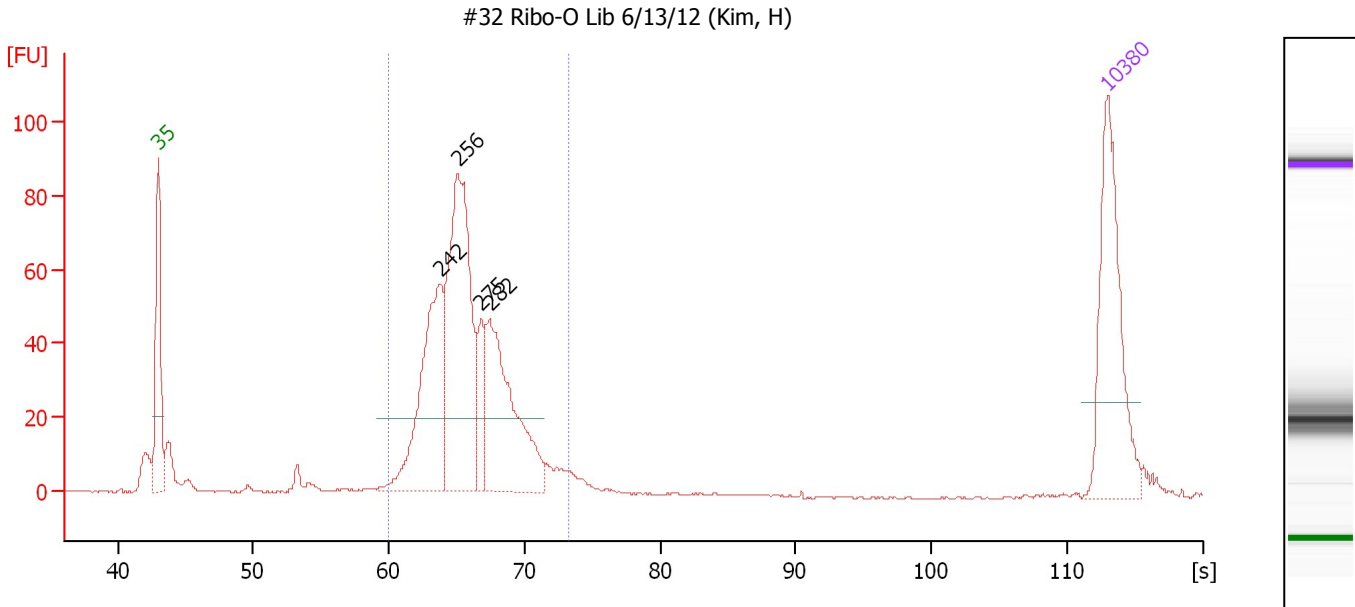
**Region table for sample 1 : #7 Ribo-O Lib 6/13/12 (Kim, H)**

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
52.12	54.51	128	78.7	6.65	6.4	1	3.4	Blue
59.68	72.10	258	3,568.7	605.35	702.8	91	9.6	Dark Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-14\2012-06-14\_001.xad

Created: 6/14/2012 8:17:22 AM  
 Modified: 6/14/2012 9:14:57 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : #32 Ribo-O Lib 6/13/12 (Kim, H)**

Number of peaks found: 4                      Corr. Area 1: 701.0  
 Noise: 0.2

**Peak table for sample 2 : #32 Ribo-O Lib 6/13/12 (Kim, H)**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	242	132.46	828.9	
3	256	193.19	1,141.2	
4	275	33.58	184.9	
5	282	124.31	667.0	
6	10,380	75.00	10.9	Upper Marker

**Region table for sample 2 : #32 Ribo-O Lib 6/13/12 (Kim, H)**

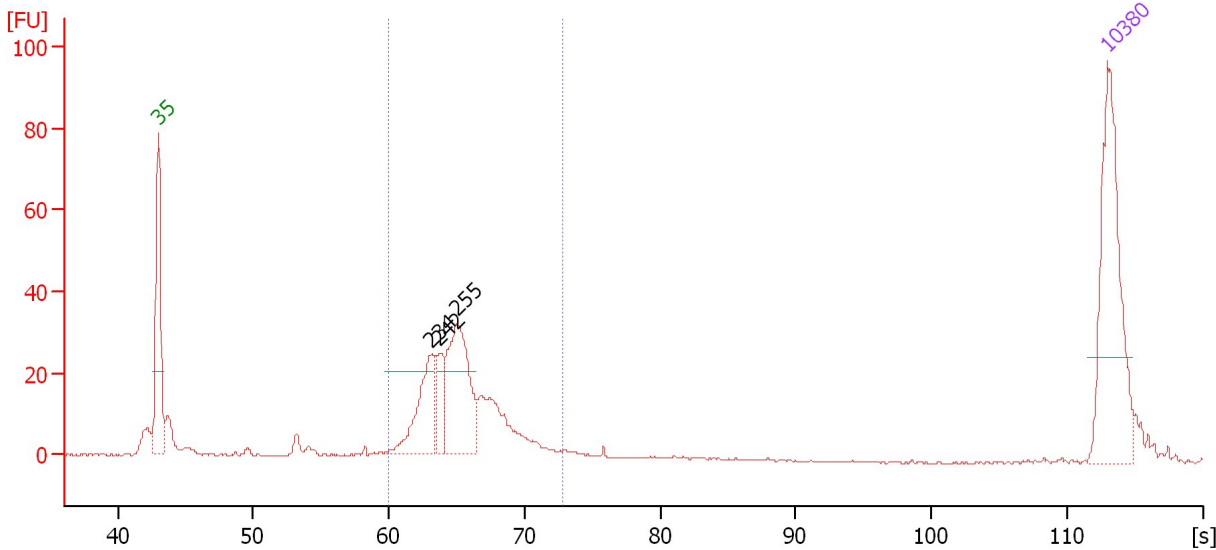
From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color
59.96	73.33	265	2,903.7	504.57	701.0 87	10.9	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-14\2012-06-14\_001.xad

Created: 6/14/2012 8:17:22 AM  
 Modified: 6/14/2012 9:14:57 AM

**Electropherogram Summary Continued ...**

#33 Ribo-O Lib 6/13/12 (Kim, H)



**Overall Results for sample 3 : #33 Ribo-O Lib 6/13/12 (Kim, H)**

Number of peaks found: 3                      Corr. Area 1: 268.3  
 Noise: 0.2

**Peak table for sample 3 : #33 Ribo-O Lib 6/13/12 (Kim, H)**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	234	54.57	352.8	
3	242	24.21	151.8	
4	255	83.85	497.7	
5	10,380	75.00	10.9	Upper Marker

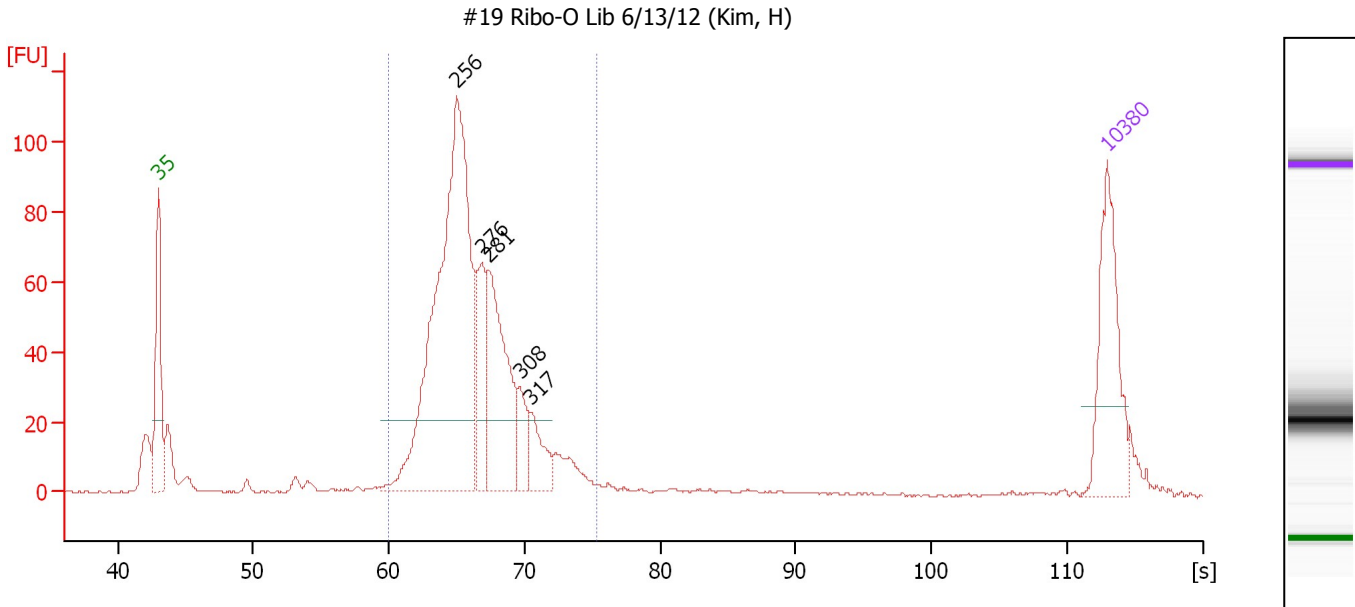
**Region table for sample 3 : #33 Ribo-O Lib 6/13/12 (Kim, H)**

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color
59.96	72.89	260	1,387.8	236.17	268.3 74	10.7	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-14\2012-06-14\_001.xad

Created: 6/14/2012 8:17:22 AM  
 Modified: 6/14/2012 9:14:57 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : #19 Ribo-O Lib 6/13/12 (Kim, H)**

Number of peaks found: 5                      Corr. Area 1: 898.4  
 Noise: 0.2

**Peak table for sample 4 : #19 Ribo-O Lib 6/13/12 (Kim, H)**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	256	465.61	2,758.8	
3	276	65.01	356.8	
4	281	144.31	778.2	
5	308	29.91	147.0	
6	317	34.45	164.5	
7	10,380	75.00	10.9	Upper Marker

**Region table for sample 4 : #19 Ribo-O Lib 6/13/12 (Kim, H)**

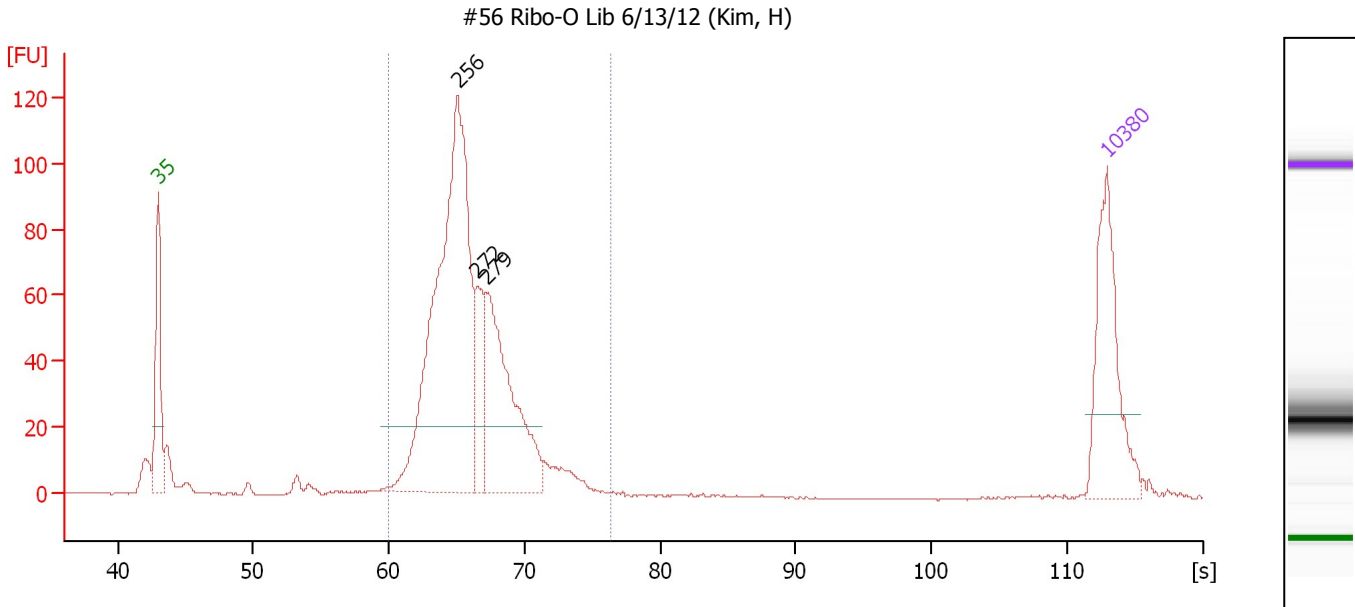
From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color
59.96	75.31	271	4,568.6	807.65	898.4 82	11.9	Blue



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-14\2012-06-14\_001.xad

Created: 6/14/2012 8:17:22 AM  
 Modified: 6/14/2012 9:14:57 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : #56 Ribo-O Lib 6/13/12 (Kim, H)**

Number of peaks found: 3                      Corr. Area 1: 882.9  
 Noise: 0.3

**Peak table for sample 5 : #56 Ribo-O Lib 6/13/12 (Kim, H)**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	256	422.80	2,498.6	
3	272	55.06	306.3	
4	279	165.71	898.5	
5	10,380	75.00	10.9	Upper Marker

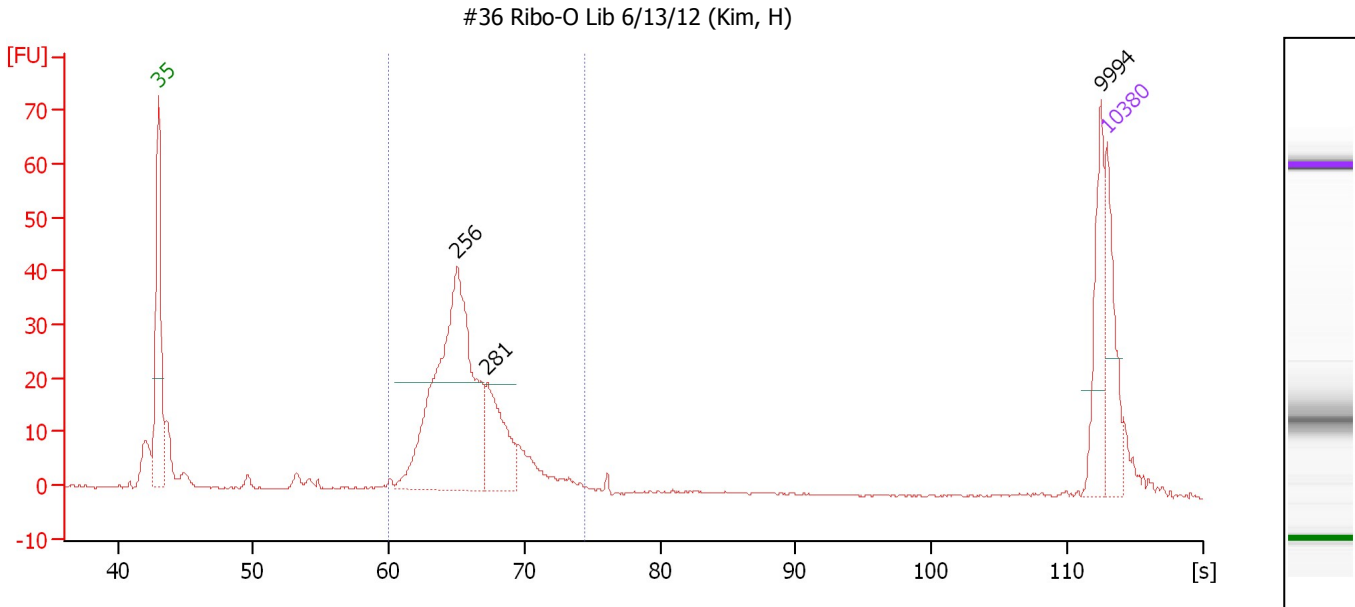
**Region table for sample 5 : #56 Ribo-O Lib 6/13/12 (Kim, H)**

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color
59.96	76.30	268	3,907.0	684.11	882.9 91	11.4	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-14\2012-06-14\_001.xad

Created: 6/14/2012 8:17:22 AM  
 Modified: 6/14/2012 9:14:57 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : #36 Ribo-O Lib 6/13/12 (Kim, H)**

Number of peaks found: 3                      Corr. Area 1: 296.1  
 Noise: 0.1

**Peak table for sample 6 : #36 Ribo-O Lib 6/13/12 (Kim, H)**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	256	547.78	3,242.6	
3	281	129.95	701.5	
4	9,994	83.78	12.7	
5	10,380	75.00	10.9	Upper Marker

**Region table for sample 6 : #36 Ribo-O Lib 6/13/12 (Kim, H)**

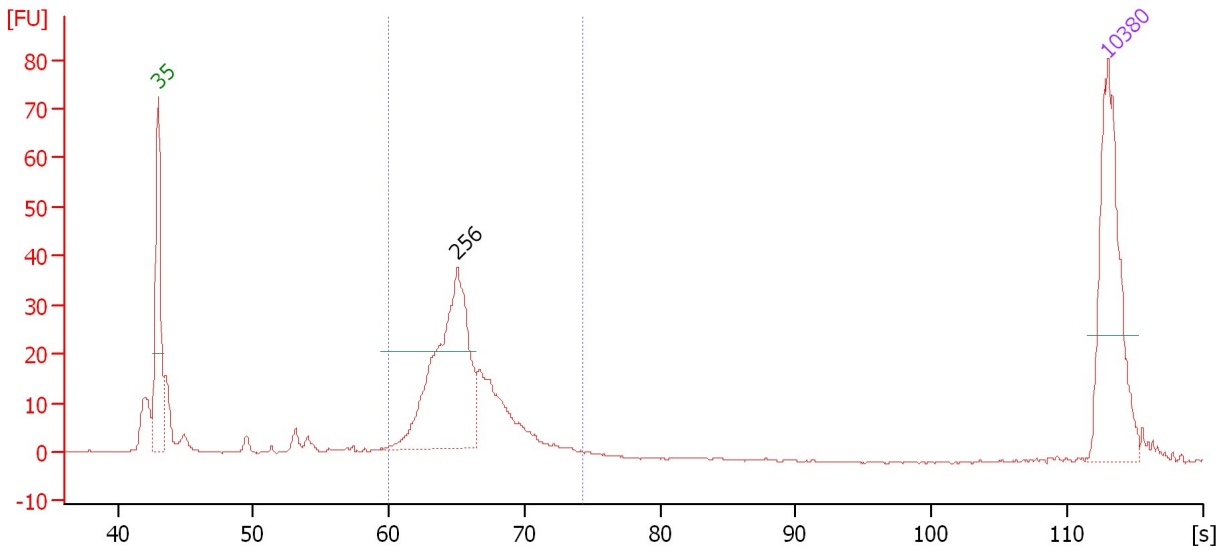
From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color
59.96	74.52	266	4,369.6	759.97	296.1 70	11.0	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-14\2012-06-14\_001.xad

Created: 6/14/2012 8:17:22 AM  
 Modified: 6/14/2012 9:14:57 AM

**Electropherogram Summary Continued ...**

#34 Ribo-O Lib 6/13/12 (Kim, H)



**Overall Results for sample 7 : #34 Ribo-O Lib 6/13/12 (Kim, H)**

Number of peaks found: 1                      Corr. Area 1: 262.3  
 Noise: 0.2

**Peak table for sample 7 : #34 Ribo-O Lib 6/13/12 (Kim, H)**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	256	165.89	980.7	
3	10,380	75.00	10.9	Upper Marker

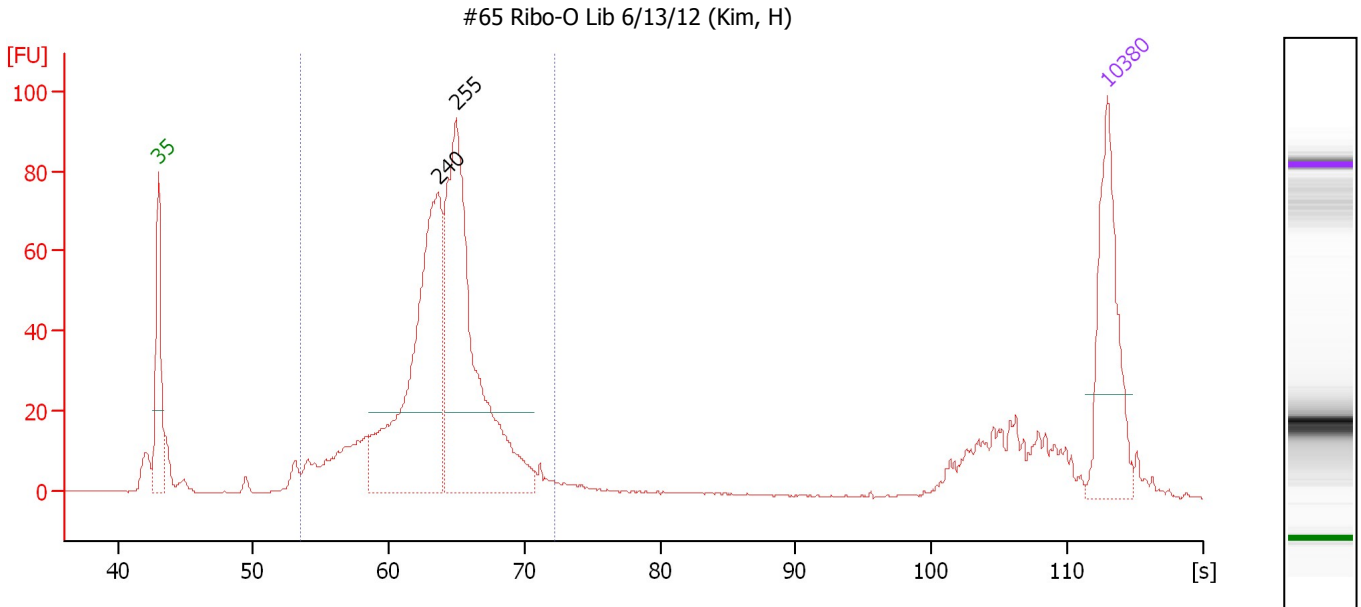
**Region table for sample 7 : #34 Ribo-O Lib 6/13/12 (Kim, H)**

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
59.96	74.27	263	1,503.5	259.01	262.3	74	11.0	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-14\2012-06-14\_001.xad

Created: 6/14/2012 8:17:22 AM  
 Modified: 6/14/2012 9:14:57 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : #65 Ribo-O Lib 6/13/12 (Kim, H)**

Number of peaks found: 2                      Corr. Area 1: 814.9  
 Noise: 0.2

**Peak table for sample 8 : #65 Ribo-O Lib 6/13/12 (Kim, H)**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	240	287.03	1,808.8	
3	255	319.69	1,897.6	
4	10,380	75.00	10.9	Upper Marker

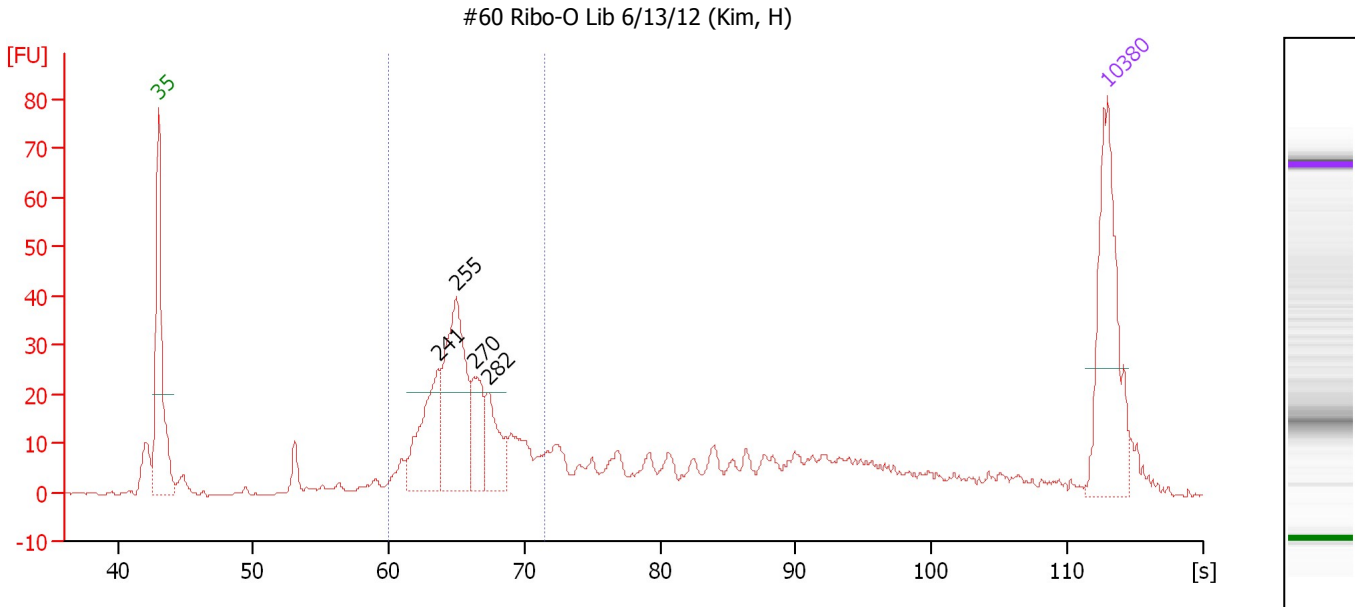
**Region table for sample 8 : #65 Ribo-O Lib 6/13/12 (Kim, H)**

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color
53.54	72.19	239	4,817.0	731.05	814.9 77	15.9	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-14\2012-06-14\_001.xad

Created: 6/14/2012 8:17:22 AM  
 Modified: 6/14/2012 9:14:57 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : #60 Ribo-O Lib 6/13/12 (Kim, H)**

Number of peaks found: 4                      Corr. Area 1: 306.5  
 Noise: 0.2

**Peak table for sample 9 : #60 Ribo-O Lib 6/13/12 (Kim, H)**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	241	71.19	448.5	
3	255	113.89	677.0	
4	270	37.22	209.1	
5	282	37.71	203.0	
6	10,380	75.00	10.9	Upper Marker

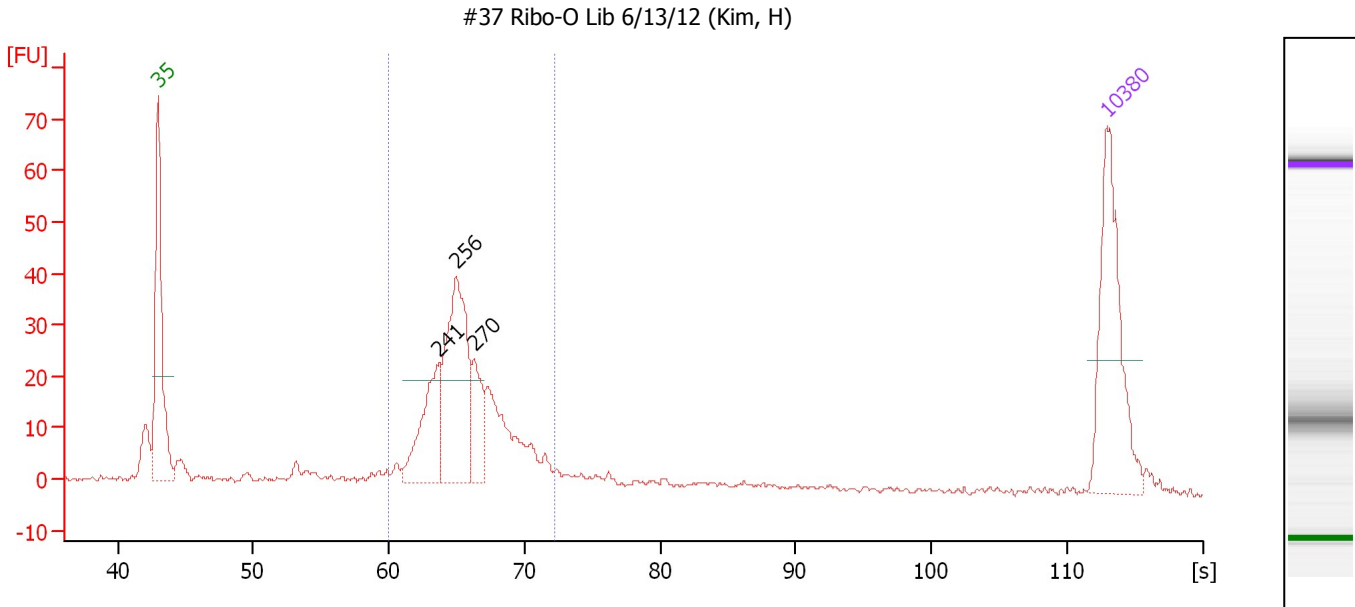
**Region table for sample 9 : #60 Ribo-O Lib 6/13/12 (Kim, H)**

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color
59.96	71.43	262	1,896.2	325.57	306.5 49	10.7	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-14\2012-06-14\_001.xad

Created: 6/14/2012 8:17:22 AM  
 Modified: 6/14/2012 9:14:57 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : #37 Ribo-O Lib 6/13/12 (Kim, H)**

Number of peaks found: 3                      Corr. Area 1: 296.6  
 Noise: 0.5

**Peak table for sample 10 : #37 Ribo-O Lib 6/13/12 (Kim, H)**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	241	66.35	416.9	
3	256	129.41	767.1	
4	270	36.72	206.4	
5	10,380	75.00	10.9	Upper Marker

**Region table for sample 10 : #37 Ribo-O Lib 6/13/12 (Kim, H)**

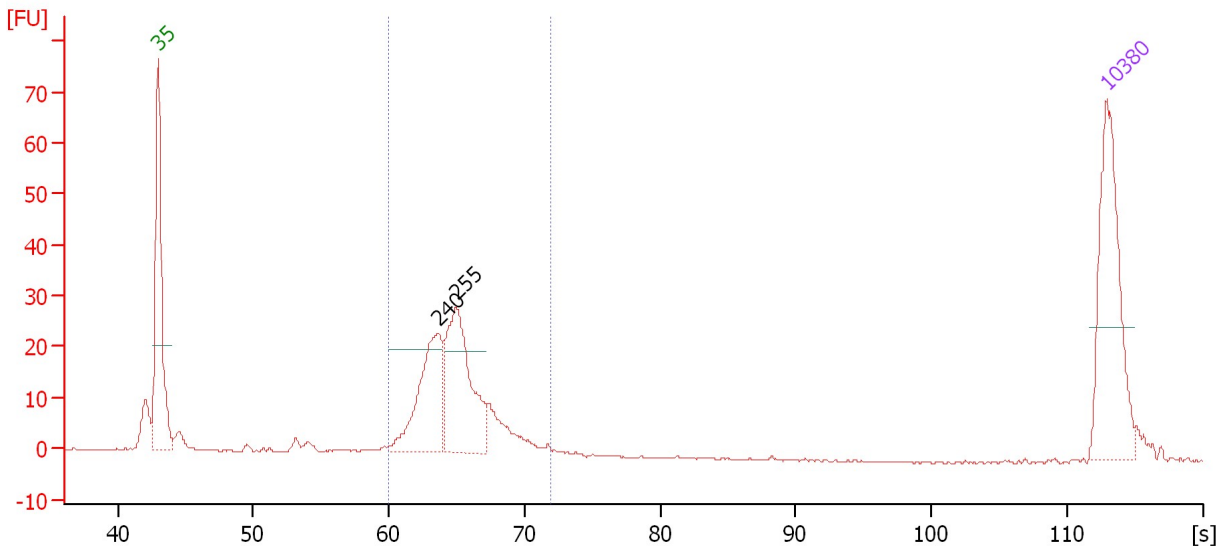
From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
59.96	72.30	264	1,927.7	333.38	296.6	70	10.6	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-14\2012-06-14\_001.xad

Created: 6/14/2012 8:17:22 AM  
 Modified: 6/14/2012 9:14:57 AM

**Electropherogram Summary Continued ...**

#71 Ribo-O Lib 6/13/12 (Kim, H)



**Overall Results for sample 11 : #71 Ribo-O Lib 6/13/12 (Kim, H)**

Number of peaks found: 2                      Corr. Area 1: 200.7  
 Noise: 0.2

**Peak table for sample 11 : #71 Ribo-O Lib 6/13/12 (Kim, H)**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	240	87.75	553.1	
3	255	108.70	646.2	
4	10,380	75.00	10.9	Upper Marker

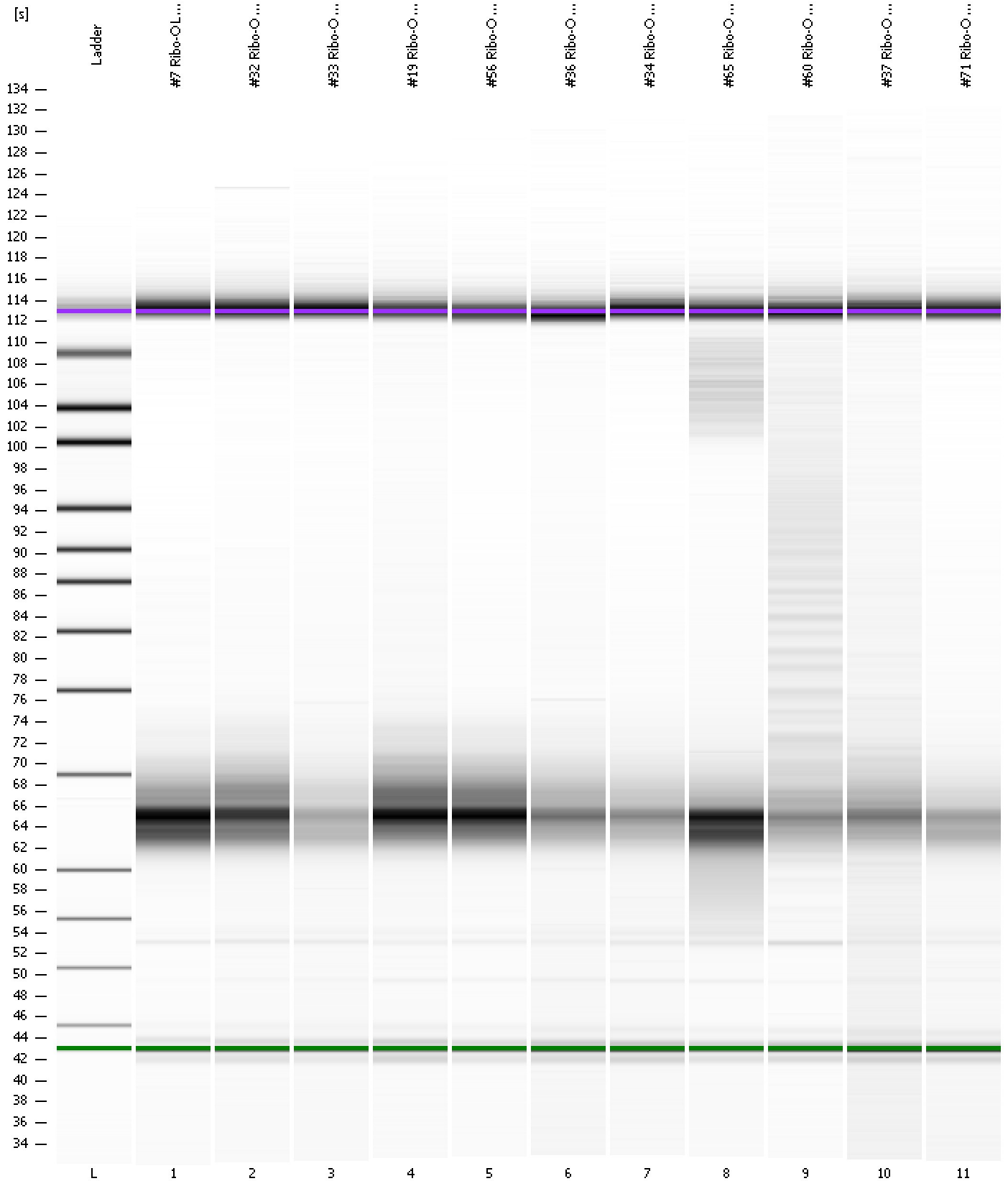
**Region table for sample 11 : #71 Ribo-O Lib 6/13/12 (Kim, H)**

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color	
59.96	71.89	254	1,376.7	230.13	200.7	83	9.4	Blue

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-14\2012-06-14\_001.xad

Created: 6/14/2012 8:17:22 AM  
Modified: 6/14/2012 9:14:57 AM

**Gel Image**





Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-14\2012-06-14\_001.xad

Created: 6/14/2012 8:17:22 AM  
 Modified: 6/14/2012 9:14:57 AM

**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		6/14/2012 8:58:40 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2012-06-14\2012-06-14_001.xad)		Instrument	Run		6/14/2012 8:17:27 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		6/14/2012 8:17:27 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		6/14/2012 8:17:27 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		6/14/2012 8:17:27 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		6/14/2012 8:17:27 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		6/14/2012 8:17:27 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		6/14/2012 8:17:27 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1