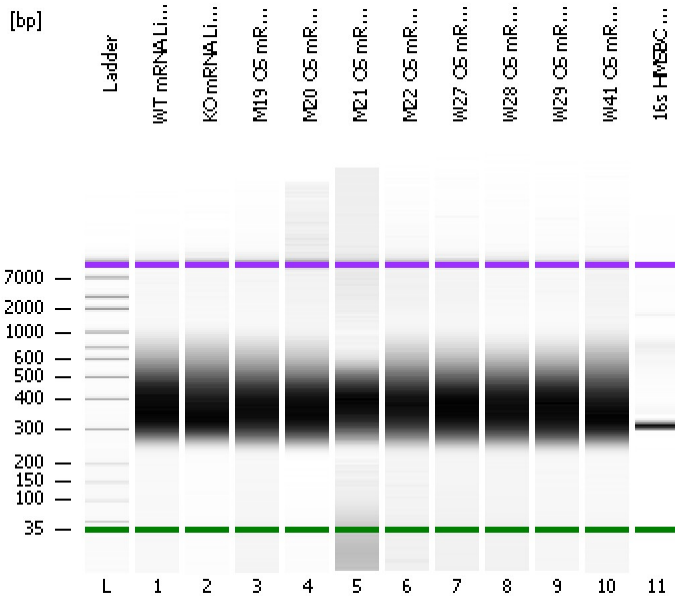


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-15\2013-08-15_001.xad

Created: 8/15/2013 4:43:23 PM
Modified: 8/15/2013 5:36:09 PM

Electrophoresis File Run Summary



Instrument Information:

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

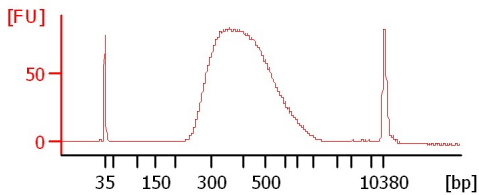
Assay Information:

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

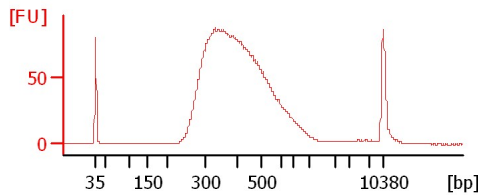
Chip Information:

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

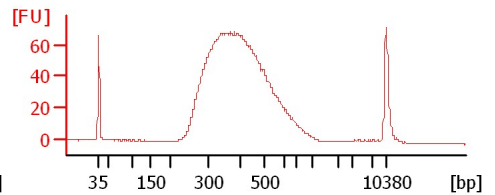
WT mRNA Lib 1:9



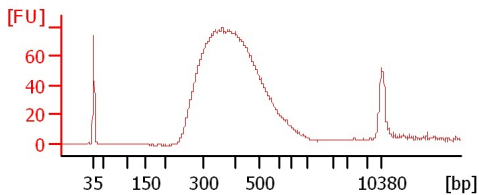
KO mRNA Lib 1:15



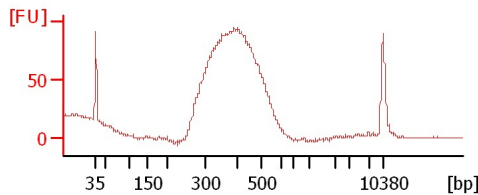
M19 OS mRNA Lib 1:11



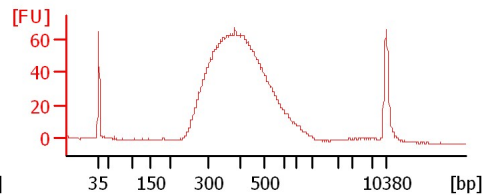
M20 OS mRNA Lib 1:8



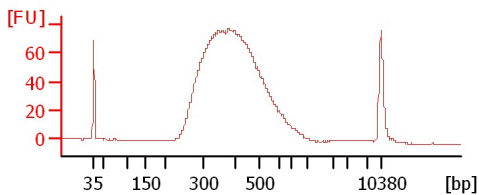
M21 OS mRNA Lib 1:8



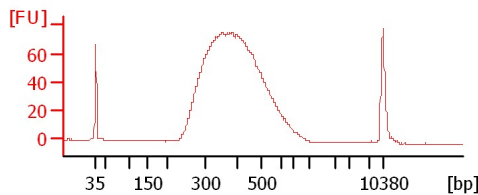
M22 OS mRNA Lib 1:10



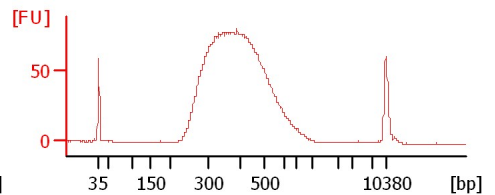
W27 OS mRNA Lib 1:9



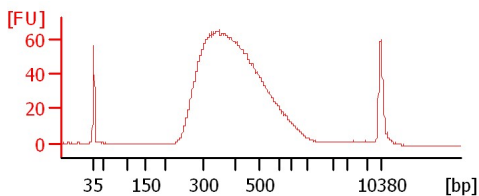
W28 OS mRNA Lib 1:6



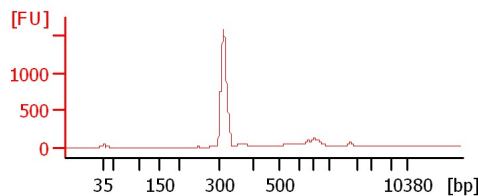
W29 OS mRNA Lib 1:4



W41 OS mRNA Lib 1:12



16s HMSBC AT38 1:2



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-15\2013-08-15_001.xad

Created: 8/15/2013 4:43:23 PM
 Modified: 8/15/2013 5:36:09 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
WT mRNA Lib 1:9		<input type="checkbox"/>	✓			
KO mRNA Lib 1:15		<input type="checkbox"/>	✓			
M19 OS mRNA Lib 1:11		<input type="checkbox"/>	✓			
M20 OS mRNA Lib 1:8		<input type="checkbox"/>	✓			
M21 OS mRNA Lib 1:8		<input type="checkbox"/>	✓			
M22 OS mRNA Lib 1:10		<input type="checkbox"/>	✓			
W27 OS mRNA Lib 1:9		<input type="checkbox"/>	✓			
W28 OS mRNA Lib 1:6		<input type="checkbox"/>	✓			
W29 OS mRNA Lib 1:4		<input type="checkbox"/>	✓			
W41 OS mRNA Lib 1:12		<input type="checkbox"/>	✓			
16s HMSBC AT38 1:2		<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\2013-08-15\2013-08-15_001.xad

Created: 8/15/2013 4:43:23 PM
Modified: 8/15/2013 5:36:09 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

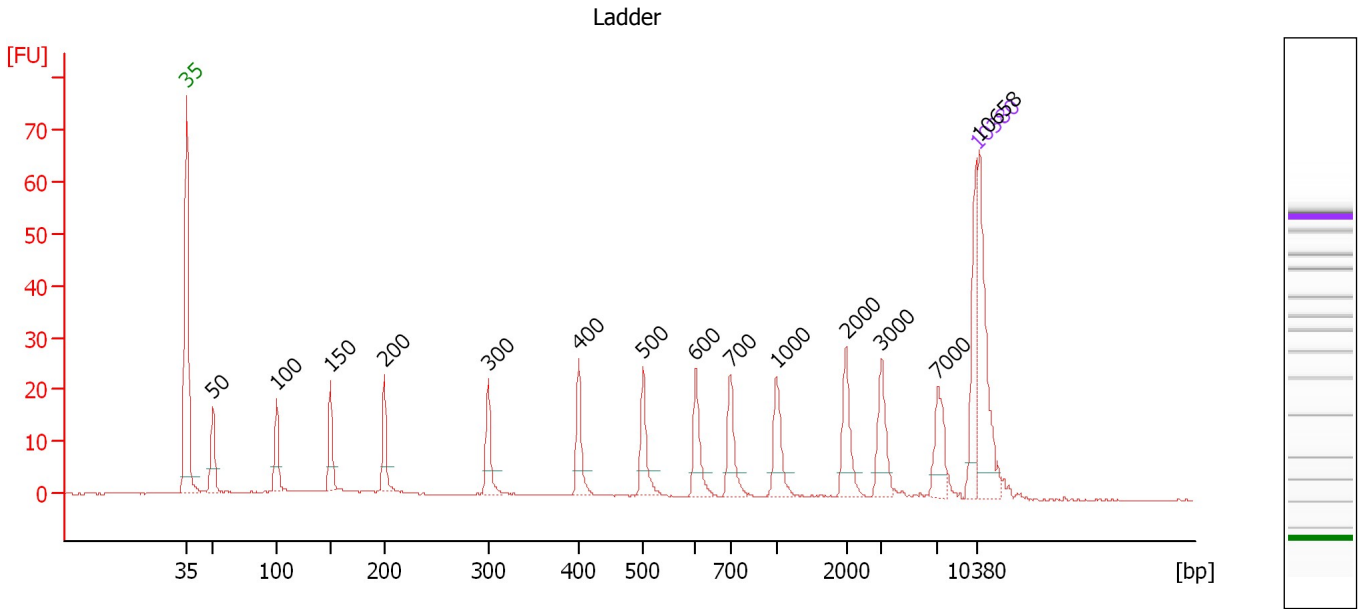
Ladder

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\2013-08-15\2013-08-15_001.xad

Created: 8/15/2013 4:43:23 PM
 Modified: 8/15/2013 5:36:09 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.1

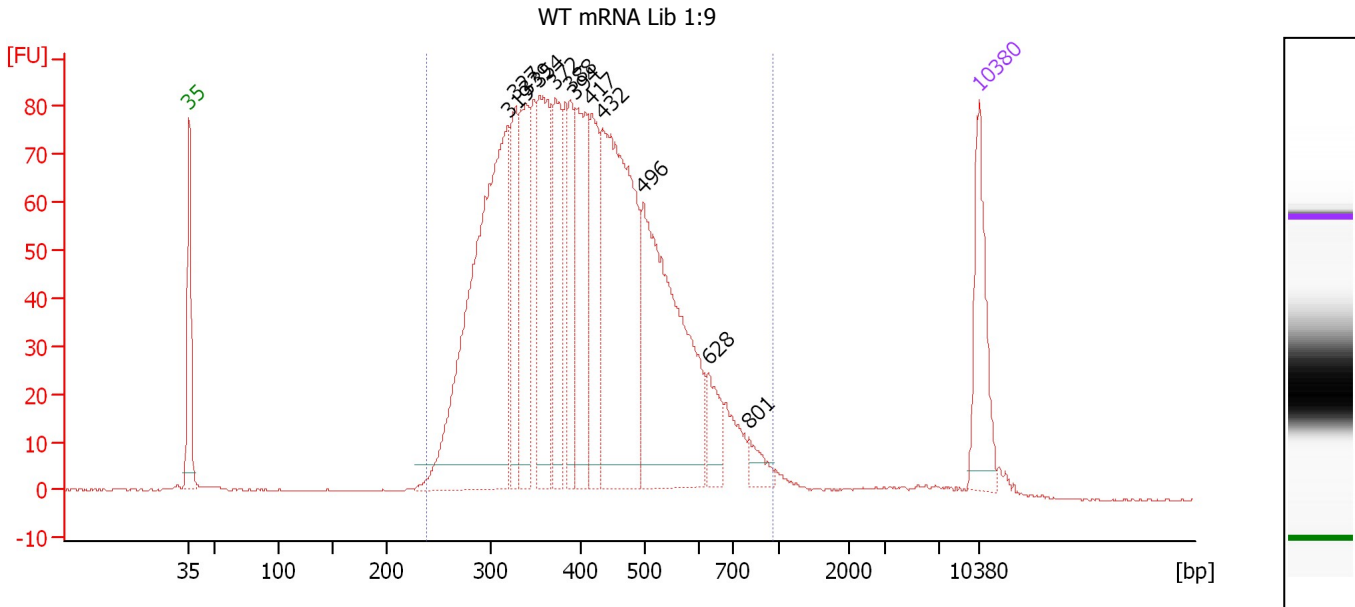
Peak table for Ladder

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
16	10,658	0.00	0.0	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-15\2013-08-15_001.xad

Created: 8/15/2013 4:43:23 PM
 Modified: 8/15/2013 5:36:09 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : WT mRNA Lib 1:9

Number of peaks found: 12 Corr. Area 1: 2,015.0
 Noise: 0.2

Peak table for sample 1 : WT mRNA Lib 1:9

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	319	566.95	2,693.4	
3	327	120.74	559.1	
4	339	140.55	628.1	
5	354	180.03	770.9	
6	372	131.47	536.1	
7	388	82.39	322.1	
8	394	158.83	610.6	
9	417	115.89	421.6	
10	432	385.29	1,350.6	
11	496	355.08	1,085.0	
12	628	39.15	94.5	
13	801	19.48	36.8	
14	10,380	75.00	10.9	Upper Marker

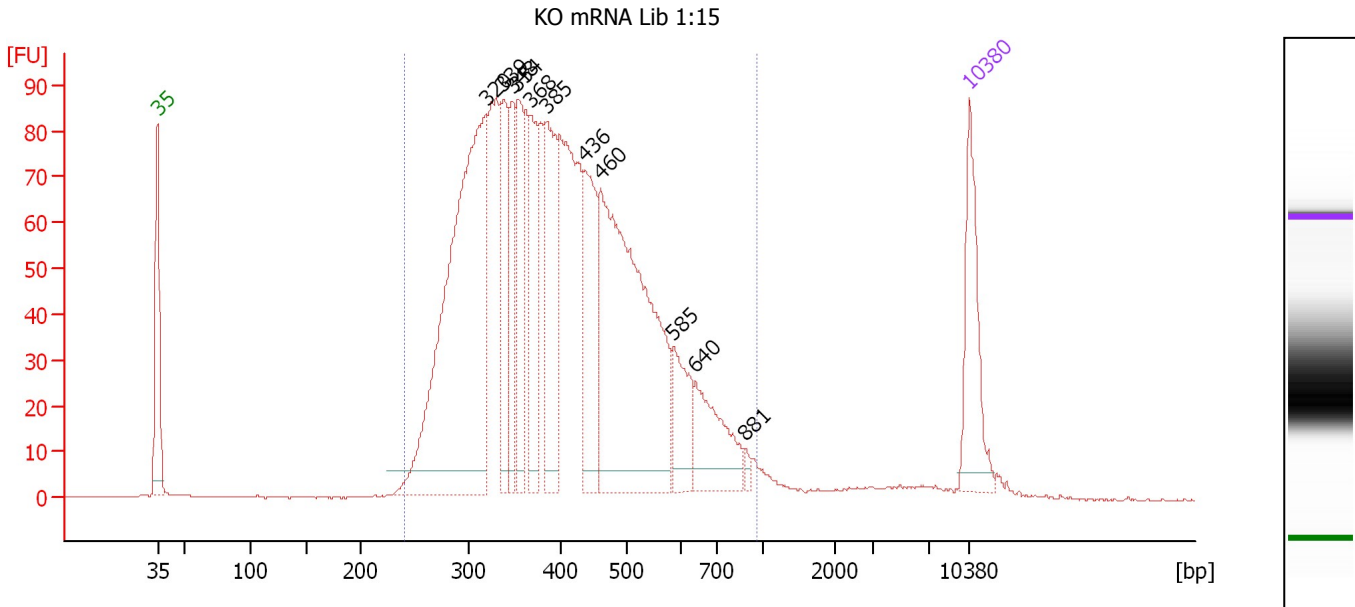
Region table for sample 1 : WT mRNA Lib 1:9

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
239	964	419	10,232.3	2,580.91	2,015.0	97	27.6	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-15\2013-08-15_001.xad

Created: 8/15/2013 4:43:23 PM
 Modified: 8/15/2013 5:36:09 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : KO mRNA Lib 1:15

Number of peaks found: 11 Corr. Area 1: 2,051.3
 Noise: 0.2

Peak table for sample 2 : KO mRNA Lib 1:15

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	320	571.19	2,708.2	
3	339	98.22	439.4	
4	348	88.99	387.2	
5	354	101.50	434.9	
6	368	94.11	387.5	
7	385	146.92	577.7	
8	436	123.58	429.2	
9	460	441.63	1,453.1	
10	585	61.49	159.1	
11	640	84.10	199.1	
12	881	5.60	9.6	
13	10,380	75.00	10.9	Upper Marker

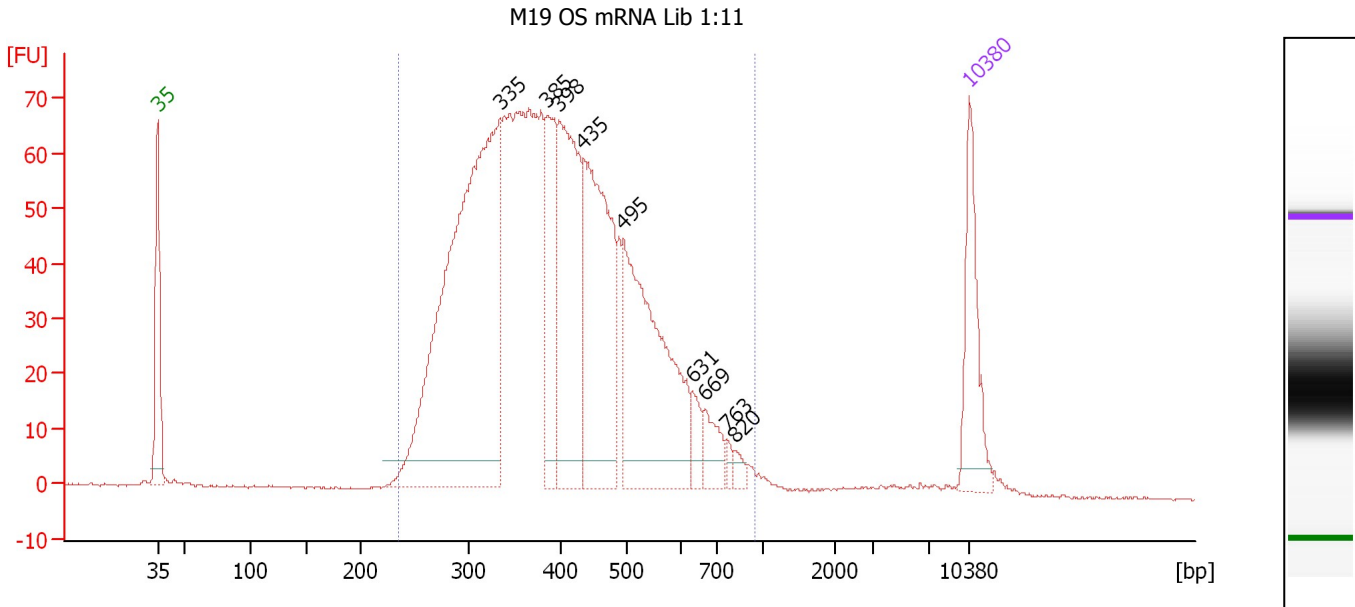
Region table for sample 2 : KO mRNA Lib 1:15

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
240	953	417	9,769.7	2,446.63	2,051.3	96	28.5	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-15\2013-08-15_001.xad

Created: 8/15/2013 4:43:23 PM
 Modified: 8/15/2013 5:36:09 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : M19 OS mRNA Lib 1:11

Number of peaks found: 9 Corr. Area 1: 1,634.2
 Noise: 0.2

Peak table for sample 3 : M19 OS mRNA Lib 1:11

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	335	731.78	3,306.9	
3	385	136.06	535.4	
4	398	255.63	972.2	
5	435	284.41	990.5	
6	495	304.94	932.9	
7	631	21.86	52.5	
8	669	32.72	74.1	
9	763	7.37	14.6	
10	820	8.85	16.4	
11	10,380	75.00	10.9	Upper Marker

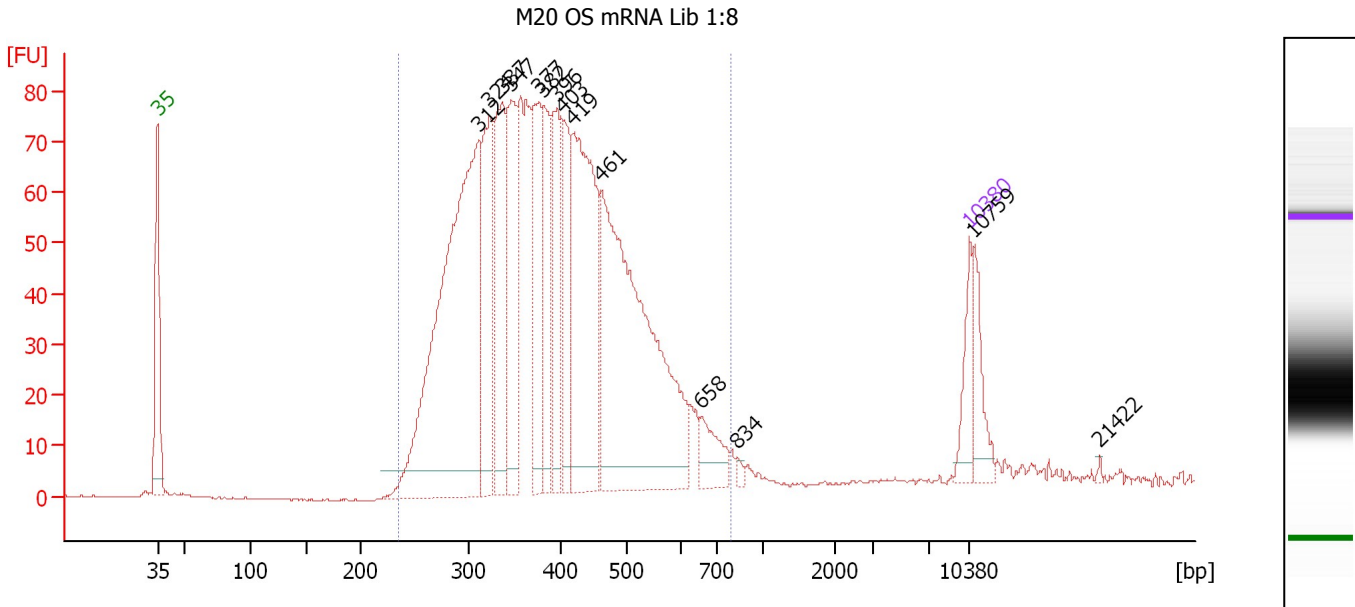
Region table for sample 3 : M19 OS mRNA Lib 1:11

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
236	941	411	9,677.6	2,397.23	1,634.2	97	27.2	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-15\2013-08-15_001.xad

Created: 8/15/2013 4:43:23 PM
 Modified: 8/15/2013 5:36:09 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : M20 OS mRNA Lib 1:8

Number of peaks found: 14 Corr. Area 1: 1,765.3
 Noise: 0.2

Peak table for sample 4 : M20 OS mRNA Lib 1:8

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	312	1,391.89	6,757.0	
3	324	386.46	1,809.4	
4	337	356.01	1,600.9	
5	347	352.94	1,542.8	
6	377	278.92	1,121.2	
7	382	223.74	888.0	
8	396	245.82	941.3	
9	403	234.30	880.3	
10	419	660.54	2,391.4	
11	461	1,099.93	3,616.7	
12	658	90.86	209.2	
13	834	10.27	18.7	
14	10,380	75.00	10.9	Upper Marker
15	10,759	0.00	0.0	
16	21,422	0.00	0.0	

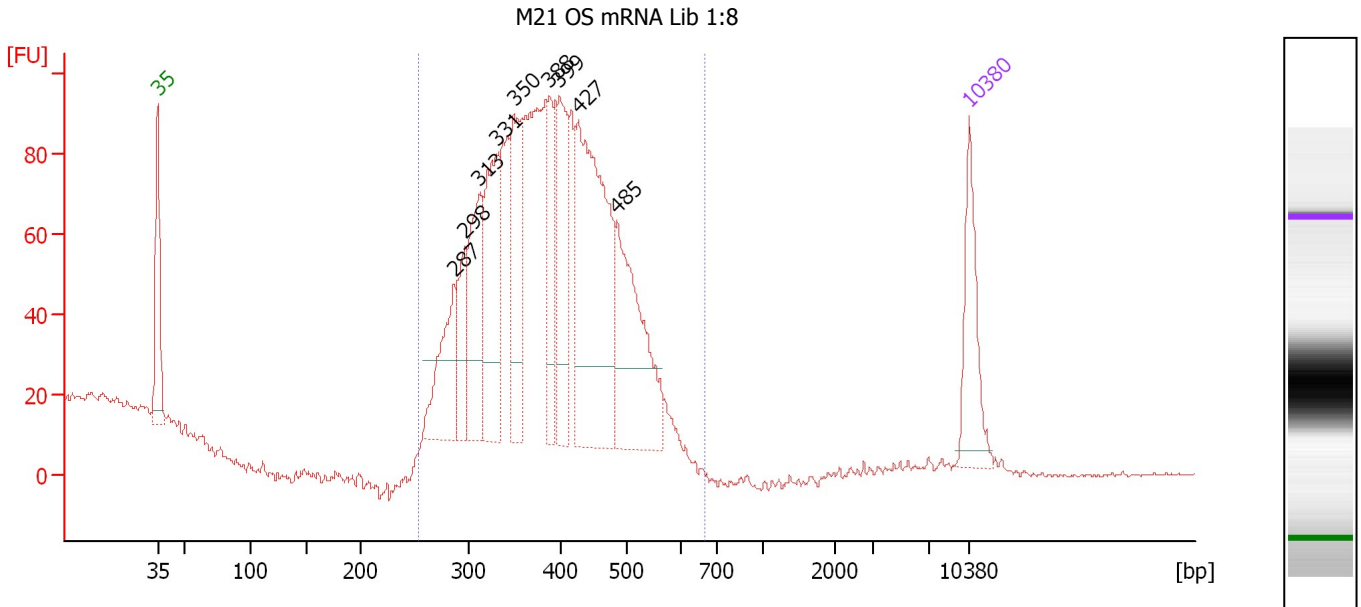
Region table for sample 4 : M20 OS mRNA Lib 1:8

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
235	796	400	24,251.5	5,922.03	1,765.3	95	24.5	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-15\2013-08-15_001.xad

Created: 8/15/2013 4:43:23 PM
 Modified: 8/15/2013 5:36:09 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 5 : M21 OS mRNA Lib 1:8

Height Threshold [FU] : 20

Overall Results for sample 5 : M21 OS mRNA Lib 1:8

Number of peaks found: 9 Corr. Area 1: 1,496.6
 Noise: 0.4

Peak table for sample 5 : M21 OS mRNA Lib 1:8

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	287	122.93	649.0	
3	298	73.69	374.8	
4	313	148.43	719.4	
5	331	170.56	779.7	
6	350	137.34	595.2	
7	388	94.53	369.2	
8	399	136.80	519.3	
9	427	354.76	1,259.2	
10	485	212.63	664.7	
11	10,380	75.00	10.9	Upper Marker

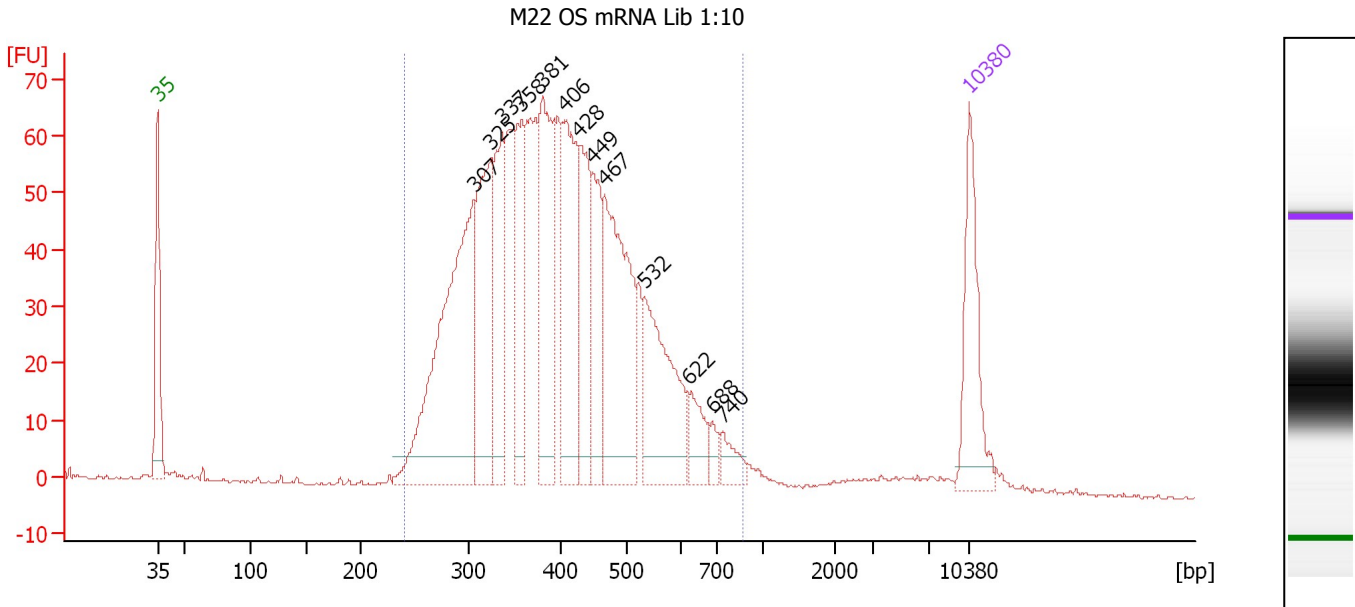
Region table for sample 5 : M21 OS mRNA Lib 1:8

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/µl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
253	670	393	7,398.5	1,842.00	1,496.6	98	17.7	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-15\2013-08-15_001.xad

Created: 8/15/2013 4:43:23 PM
 Modified: 8/15/2013 5:36:09 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : M22 OS mRNA Lib 1:10

Number of peaks found: 13 Corr. Area 1: 1,463.6
 Noise: 0.3

Peak table for sample 6 : M22 OS mRNA Lib 1:10

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	307	352.91	1,743.3	
3	325	175.93	819.8	
4	337	121.05	543.9	
5	358	104.61	442.5	
6	381	168.93	671.7	
7	406	158.22	590.0	
8	428	105.54	373.2	
9	449	81.74	275.9	
10	467	207.20	672.8	
11	532	144.32	411.1	
12	622	34.35	83.7	
13	688	11.79	26.0	
14	740	21.56	44.2	
15	10,380	75.00	10.9	Upper Marker

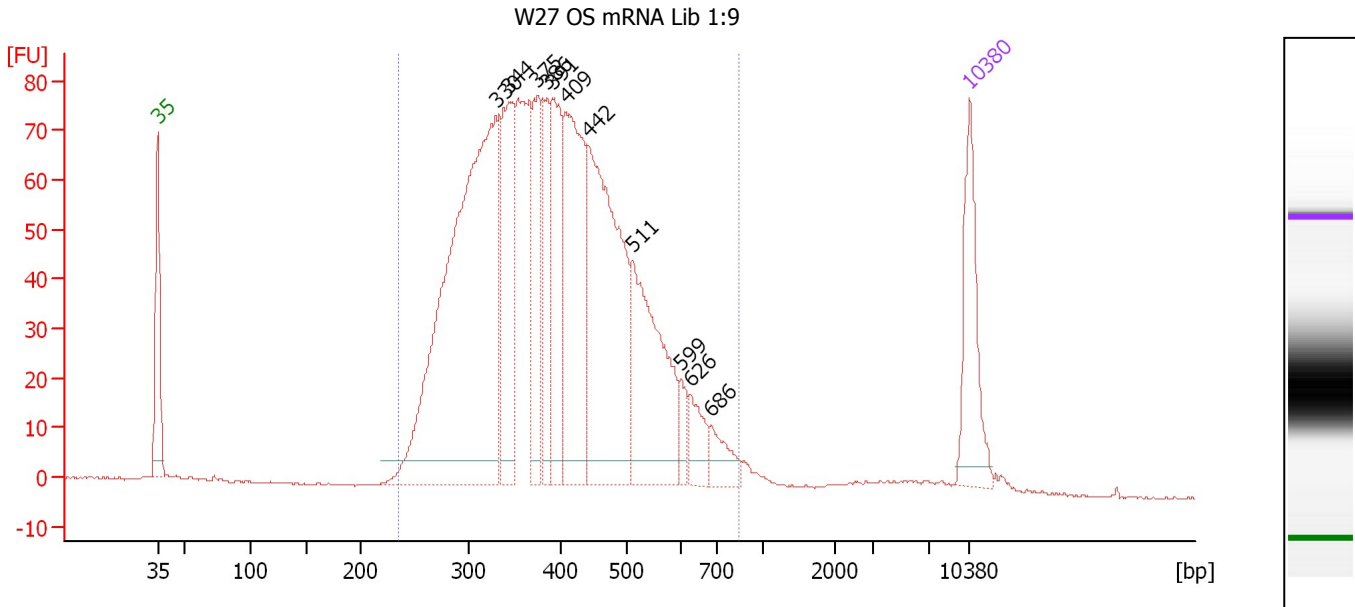
Region table for sample 6 : M22 OS mRNA Lib 1:10

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
241	872	411	8,222.4	2,057.11	1,463.6	96	25.6	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-15\2013-08-15_001.xad

Created: 8/15/2013 4:43:23 PM
 Modified: 8/15/2013 5:36:09 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : W27 OS mRNA Lib 1:9

Number of peaks found: 11 Corr. Area 1: 1,773.8
 Noise: 0.2

Peak table for sample 7 : W27 OS mRNA Lib 1:9

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	330	670.06	3,074.9	
3	344	178.14	783.8	
4	375	110.65	446.8	
5	386	82.73	324.6	
6	391	136.69	529.2	
7	409	217.14	803.4	
8	442	317.91	1,090.1	
9	511	191.40	567.1	
10	599	19.27	48.7	
11	626	31.10	75.3	
12	686	28.23	62.4	
13	10,380	75.00	10.9	Upper Marker

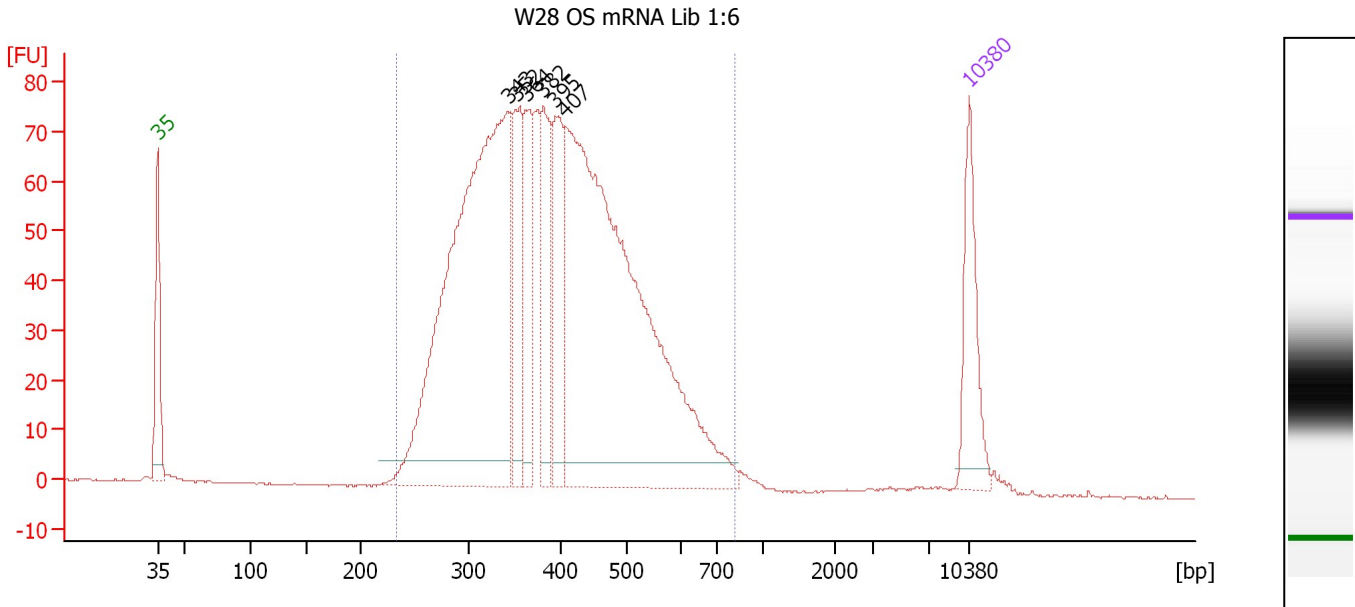
Region table for sample 7 : W27 OS mRNA Lib 1:9

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
235	846	405	9,020.8	2,226.21	1,773.8	98	25.1	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-15\2013-08-15_001.xad

Created: 8/15/2013 4:43:23 PM
 Modified: 8/15/2013 5:36:09 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : W28 OS mRNA Lib 1:6

Number of peaks found: 6 Corr. Area 1: 1,706.5
 Noise: 0.2

Peak table for sample 8 : W28 OS mRNA Lib 1:6

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	343	809.02	3,569.1	
3	352	126.50	544.7	
4	364	109.36	455.7	
5	382	117.30	465.5	
6	395	131.01	502.8	
7	407	846.39	3,148.8	
8	10,380	75.00	10.9	Upper Marker

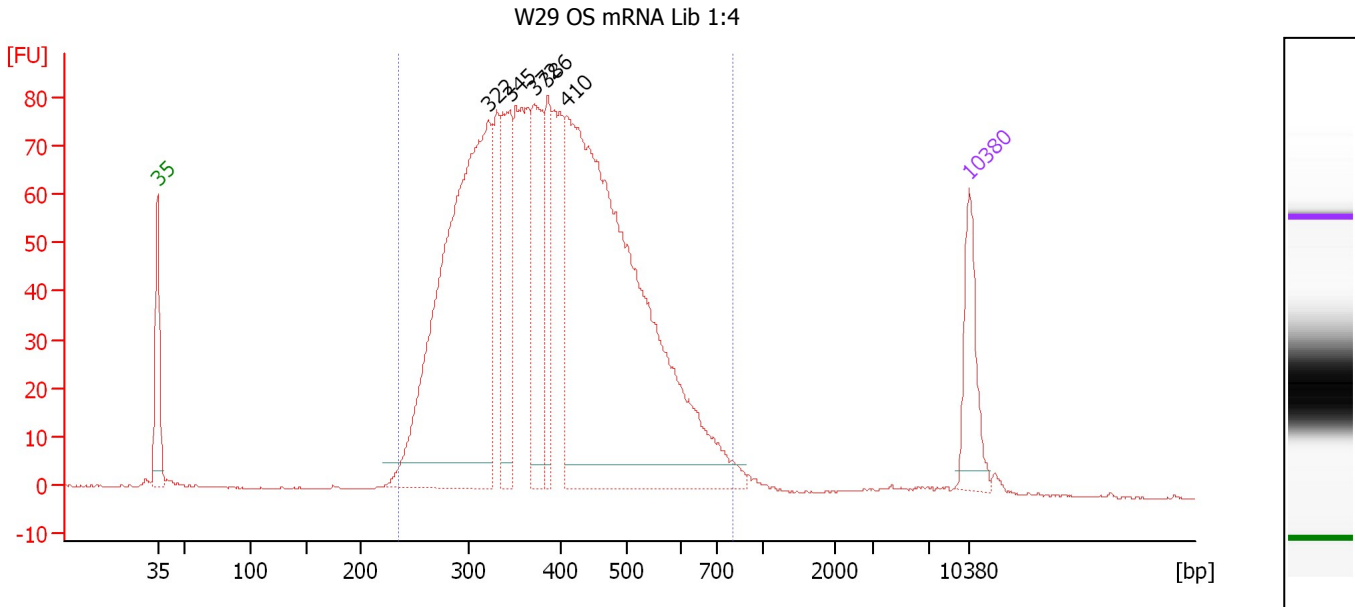
Region table for sample 8 : W28 OS mRNA Lib 1:6

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
234	810	401	9,154.3	2,247.64	1,706.5	98	24.3	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-15\2013-08-15_001.xad

Created: 8/15/2013 4:43:23 PM
 Modified: 8/15/2013 5:36:09 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : W29 OS mRNA Lib 1:4

Number of peaks found: 5 Corr. Area 1: 1,857.2
 Noise: 0.1

Peak table for sample 9 : W29 OS mRNA Lib 1:4

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	322	888.29	4,182.7	
3	345	185.57	814.2	
4	372	195.23	796.2	
5	386	112.49	441.6	
6	410	1,150.96	4,257.8	
7	10,380	75.00	10.9	Upper Marker

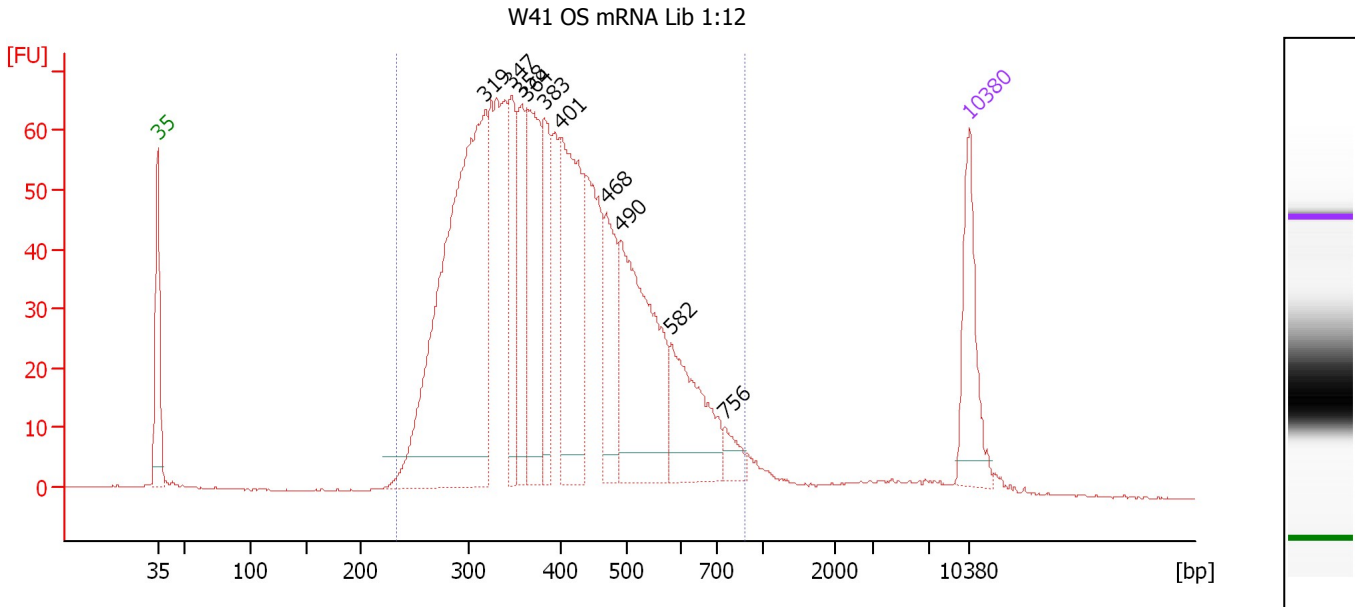
Region table for sample 9 : W29 OS mRNA Lib 1:4

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
236	808	401	12,805.9	3,124.28	1,857.2	97	24.8	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-15\2013-08-15_001.xad

Created: 8/15/2013 4:43:23 PM
 Modified: 8/15/2013 5:36:09 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : W41 OS mRNA Lib 1:12

Number of peaks found: 10 Corr. Area 1: 1,521.2
 Noise: 0.1

Peak table for sample 10 : W41 OS mRNA Lib 1:12

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	319	663.19	3,153.4	
3	347	106.35	464.4	
4	358	116.57	493.1	
5	364	176.23	733.4	
6	383	105.38	417.4	
7	401	225.00	849.4	
8	468	107.32	347.1	
9	490	256.12	792.6	
10	582	121.62	316.8	
11	756	21.11	42.3	
12	10,380	75.00	10.9	Upper Marker

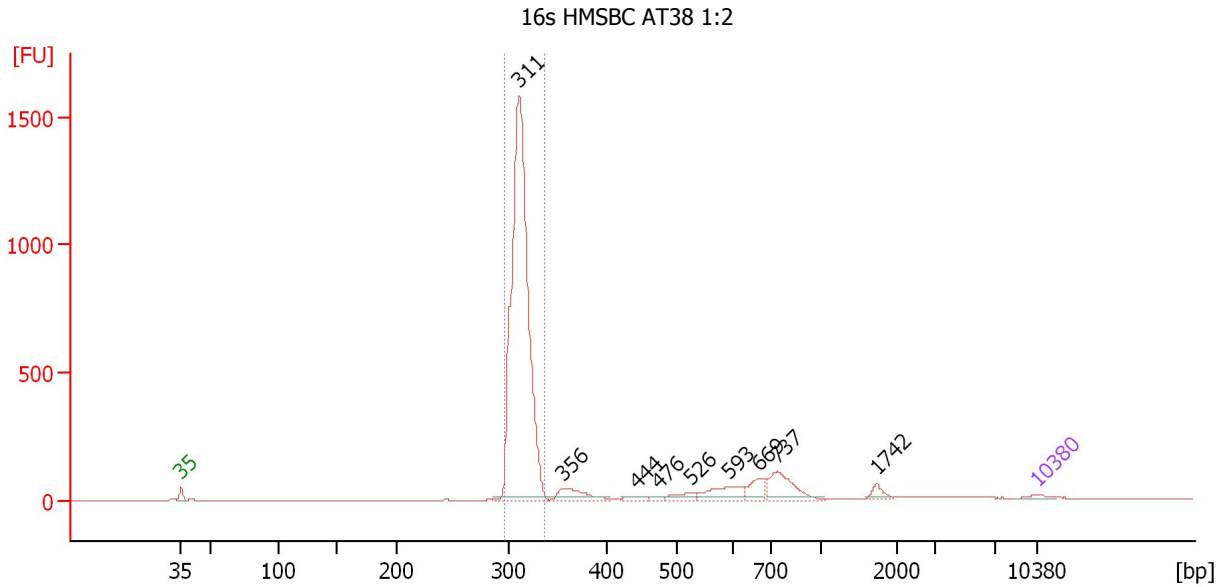
Region table for sample 10 : W41 OS mRNA Lib 1:12

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
234	883	408	10,171.7	2,499.84	1,521.2	96	27.6	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-15\2013-08-15_001.xad

Created: 8/15/2013 4:43:23 PM
 Modified: 8/15/2013 5:36:09 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 11 : 16s HMSBC AT38 1:2

Height Threshold [FU] : 15

Overall Results for sample 11 : 16s HMSBC AT38 1:2

Number of peaks found: 9 Corr. Area 1: 3,811.8
 Noise: 0.1

Peak table for sample 11 : 16s HMSBC AT38 1:2

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	311	14,342.59	69,934.2	
3	356	689.15	2,930.4	
4	444	141.80	484.4	
5	476	85.90	273.3	
6	526	260.69	751.6	
7	593	622.26	1,589.6	
8	669	459.37	1,041.1	
9	737	945.50	1,942.6	
10	1,742	185.54	161.4	
11	10,380	75.00	10.9	Upper Marker

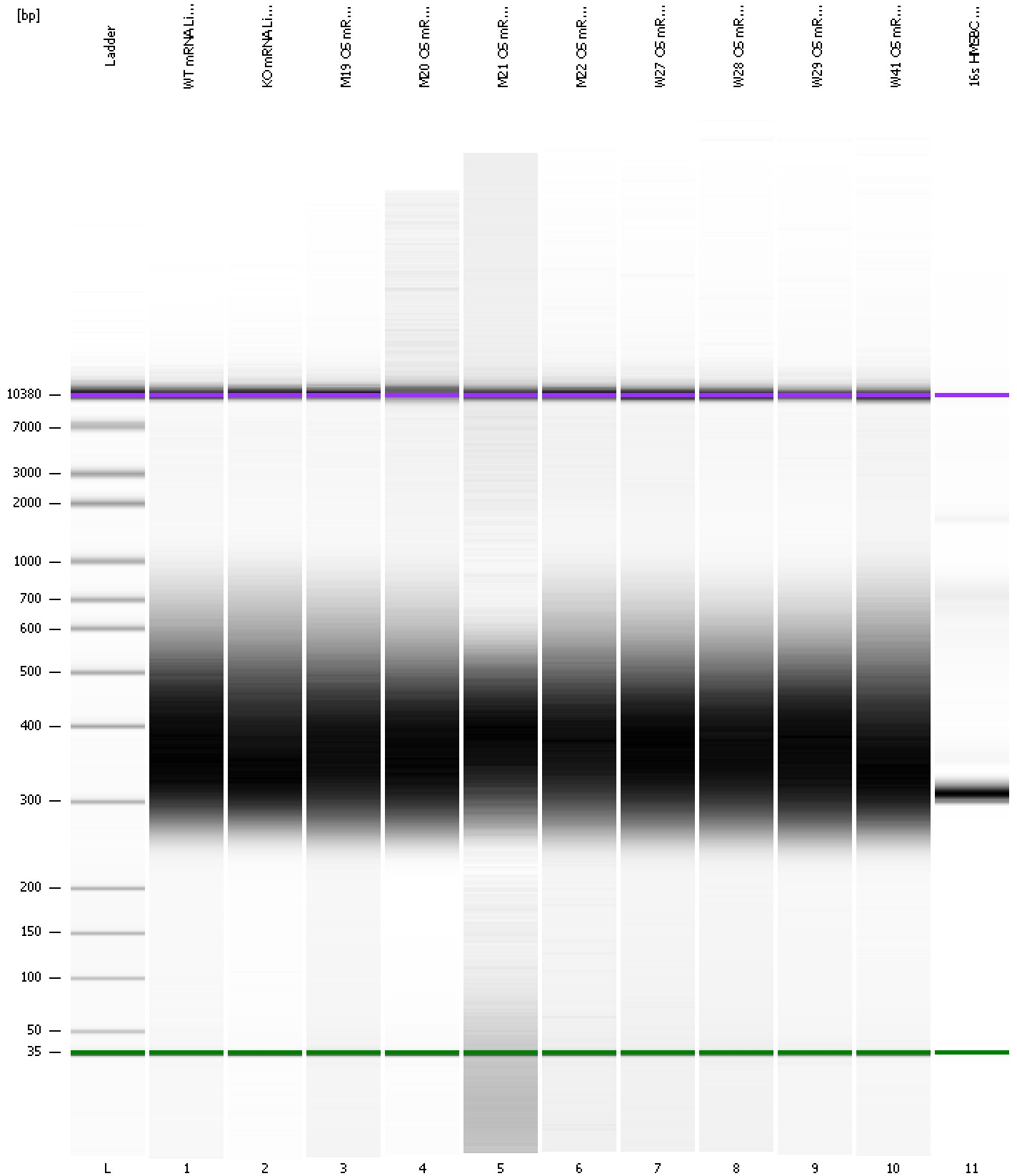
Region table for sample 11 : 16s HMSBC AT38 1:2

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
296	337	312	68,742.2	14,160.62	3,811.8	76	2.6	Blue

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-15\2013-08-15_001.xad

Created: 8/15/2013 4:43:23 PM
Modified: 8/15/2013 5:36:09 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-15\2013-08-15_001.xad

Created: 8/15/2013 4:43:23 PM
 Modified: 8/15/2013 5:36:09 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		8/15/2013 5:24:42 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2013-08-15\2013-08-15_001.xad)		Instrument	Run		8/15/2013 4:43:29 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		8/15/2013 4:43:29 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		8/15/2013 4:43:29 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		8/15/2013 4:43:29 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		8/15/2013 4:43:29 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		8/15/2013 4:43:29 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		8/15/2013 4:43:29 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1