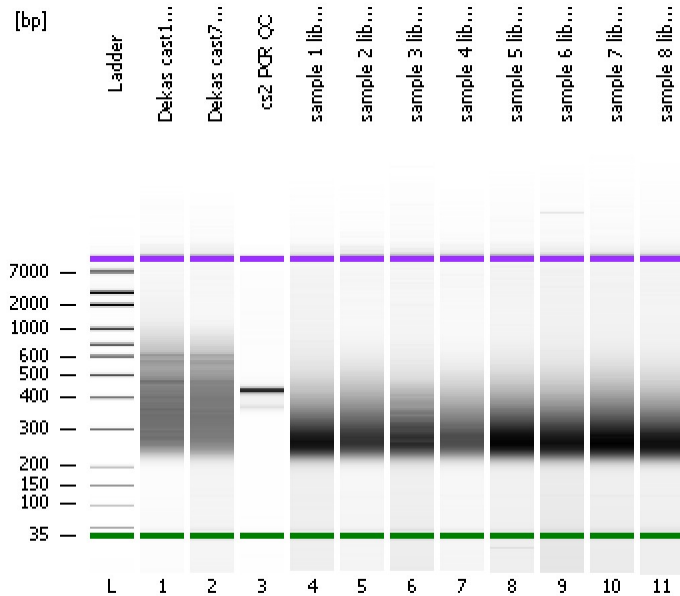


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-09-22\2015-09-22_004.xad

Created: 9/22/2015 2:12:50 PM
Modified: 9/22/2015 2:54:12 PM

Electrophoresis File Run Summary



Instrument Information:

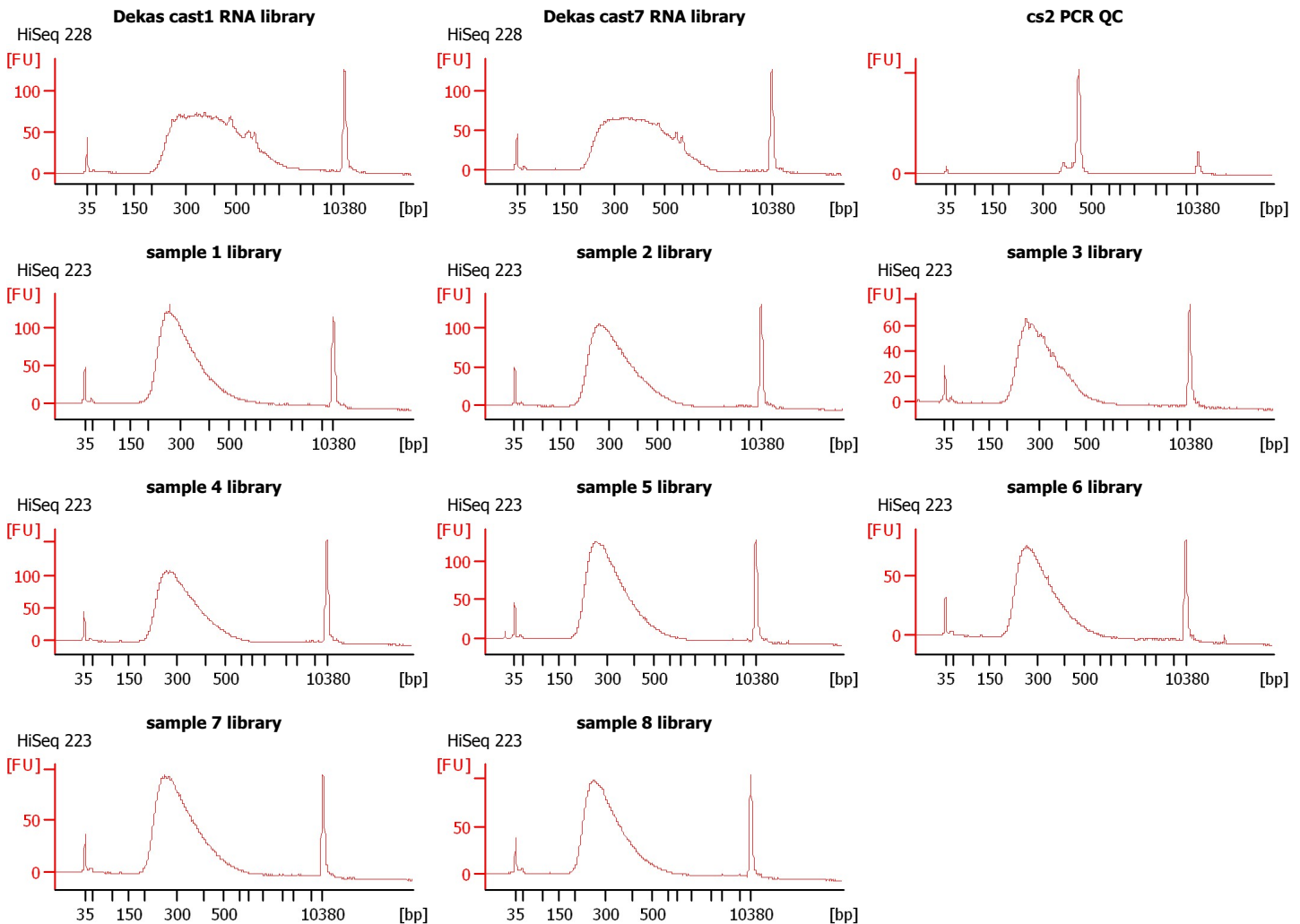
Instrument Name: DE13701086 Firmware: C.01.069
Serial#: DE13701086 Type: G2938B

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:\...ents and Settings\Bioanalyzer\2015-09-22\2015-09-22_004.xad

Created: 9/22/2015 2:12:50 PM
 Modified: 9/22/2015 2:54:12 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
Dekas cast1 RNA library	HiSeq 228	<input type="checkbox"/>	✓			
Dekas cast7 RNA library	HiSeq 228	<input type="checkbox"/>	✓			
cs2 PCR QC		<input type="checkbox"/>	✓			
sample 1 library	HiSeq 223	<input type="checkbox"/>	✓			
sample 2 library	HiSeq 223	<input type="checkbox"/>	✓			
sample 3 library	HiSeq 223	<input type="checkbox"/>	✓			
sample 4 library	HiSeq 223	<input type="checkbox"/>	✓			
sample 5 library	HiSeq 223	<input type="checkbox"/>	✓			
sample 6 library	HiSeq 223	<input type="checkbox"/>	✓			
sample 7 library	HiSeq 223	<input type="checkbox"/>	✓			
sample 8 library	HiSeq 223	<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\2015-09-22\2015-09-22_004.xad

Created: 9/22/2015 2:12:50 PM
Modified: 9/22/2015 2:54:12 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

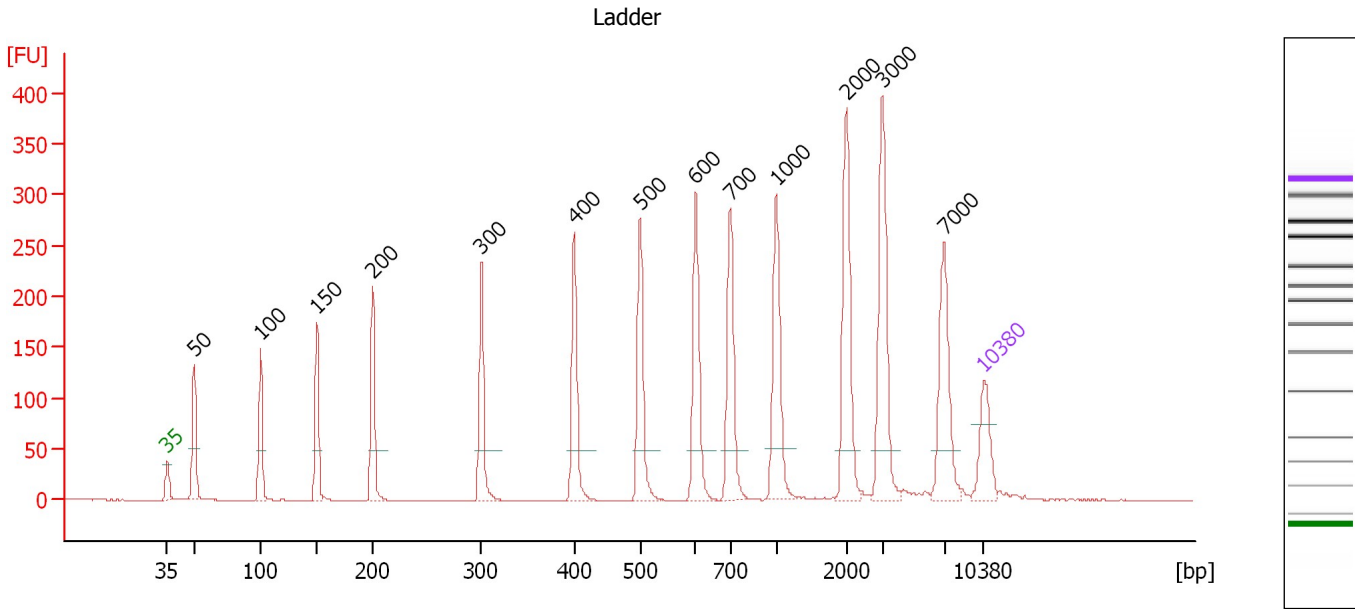
Ladder

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\2015-09-22\2015-09-22_004.xad

Created: 9/22/2015 2:12:50 PM
 Modified: 9/22/2015 2:54:12 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

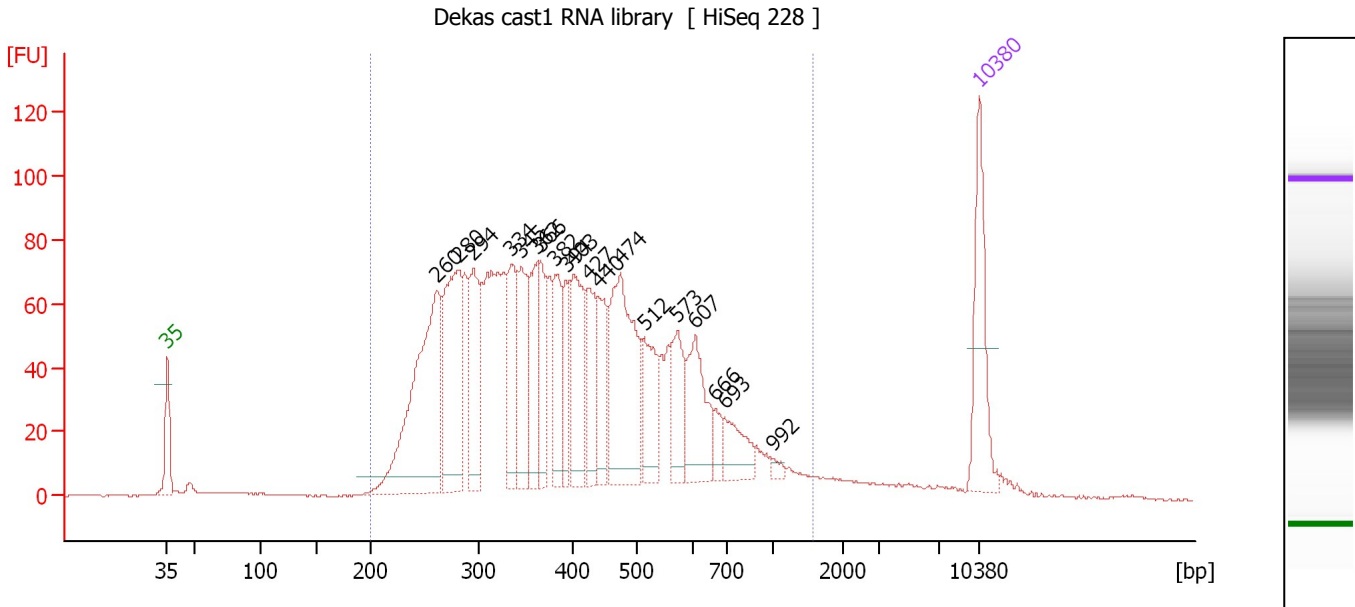
Peak table for Ladder

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	50	150.00	4,545.5	Ladder Peak	45.33
3	100	150.00	2,272.7	Ladder Peak	51.00
4	150	150.00	1,515.2	Ladder Peak	55.85
5	200	150.00	1,136.4	Ladder Peak	60.60
6	300	150.00	757.6	Ladder Peak	69.93
7	400	150.00	568.2	Ladder Peak	77.89
8	500	150.00	454.5	Ladder Peak	83.56
9	600	150.00	378.8	Ladder Peak	88.31
10	700	150.00	324.7	Ladder Peak	91.28
11	1,000	150.00	227.3	Ladder Peak	95.26
12	2,000	150.00	113.6	Ladder Peak	101.25
13	3,000	150.00	75.8	Ladder Peak	104.36
14	7,000	150.00	32.5	Ladder Peak	109.62
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-09-22\2015-09-22_004.xad

Created: 9/22/2015 2:12:50 PM
 Modified: 9/22/2015 2:54:12 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : Dekas cast1 RNA library

Number of peaks found: 19 Corr. Area 1: 2,414.5
 Noise: 0.2

Peak table for sample 1 : Dekas cast1 RNA library

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	260	291.70	1,698.0		66.23
3	280	187.37	1,013.9		68.07
4	294	108.26	557.3		69.40
5	334	87.37	396.6		72.62
6	345	87.87	385.5		73.54
7	362	76.59	320.5		74.87
8	366	63.83	264.1		75.19
9	382	73.71	292.1		76.48
10	394	48.12	185.1		77.40
11	403	105.71	397.6		78.05
12	427	67.83	240.6		79.43
13	440	64.05	220.5		80.16
14	474	185.69	593.3		82.09
15	512	68.62	203.1		84.12
16	573	59.50	157.4		87.01
17	607	81.23	202.6		88.53
18	666	16.40	37.3		90.28
19	693	40.49	88.6		91.06
20	992	5.41	8.3		95.16
21	10,380	75.00	10.9	Upper Marker	113.00

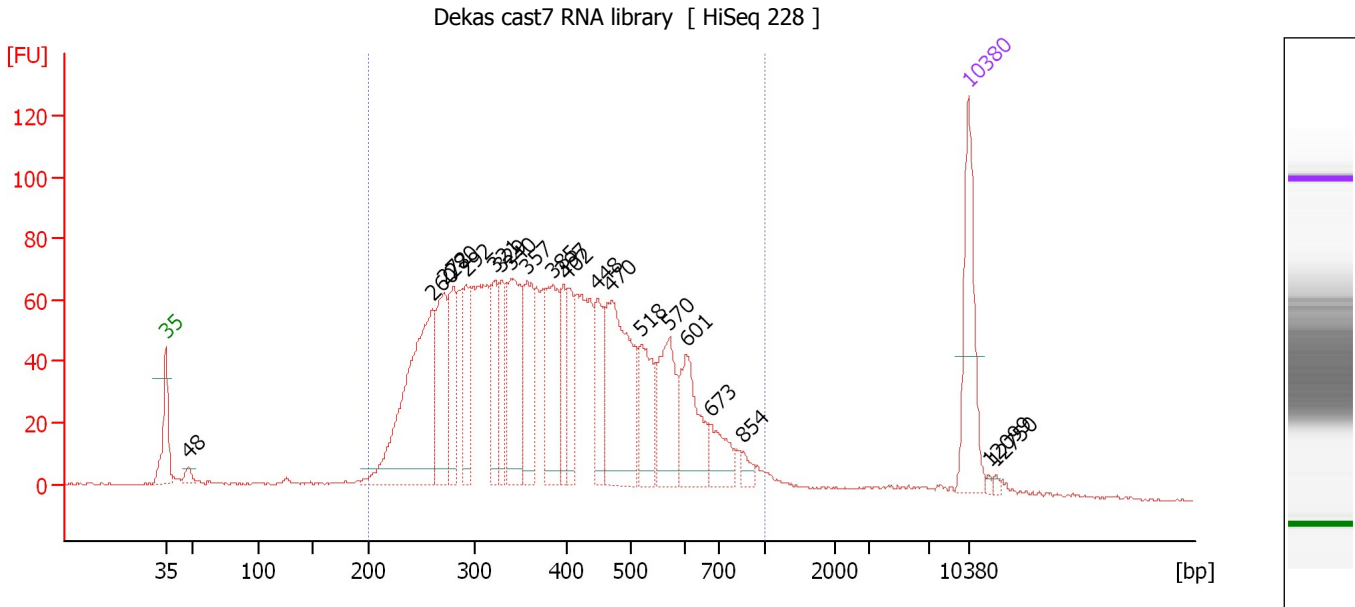
Region table for sample 1 : Dekas cast1 RNA library

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]	Conc. [pg/μl]
200	429	1,568	2,414.5	9,733.9	96	42.1	2,313.11

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-09-22\2015-09-22_004.xad

Created: 9/22/2015 2:12:50 PM
 Modified: 9/22/2015 2:54:12 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : Dekas cast7 RNA library

Number of peaks found: 21 Corr. Area 1: 2,270.2
 Noise: 0.4

Peak table for sample 2 : Dekas cast7 RNA library


Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	48	12.35	393.5		44.95
3	260	270.95	1,578.3		66.21
4	272	106.34	593.3		67.28
5	280	76.87	415.9		68.07
6	292	62.98	326.8		69.19
7	321	63.99	302.0		71.60
8	329	54.62	251.4		72.26
9	340	114.97	512.7		73.09
10	357	81.95	348.1		74.44
11	385	100.69	395.9		76.72
12	397	45.61	174.0		77.65
13	402	47.97	180.6		78.02
14	448	58.67	198.3		80.63
15	470	167.09	539.0		81.84
16	518	69.23	202.6		84.40
17	570	76.70	203.7		86.91
18	601	76.71	193.3		88.35
19	673	32.35	72.8		90.49
20	854	9.14	16.2		93.33
21	10,380	75.00	10.9	Upper Marker	113.00
22	12,099	0.00	0.0		114.72
23	12,750	0.00	0.0		115.37

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-09-22\2015-09-22_004.xad

Created: 9/22/2015 2:12:50 PM
Modified: 9/22/2015 2:54:12 PM

Electropherogram Summary Continued ...

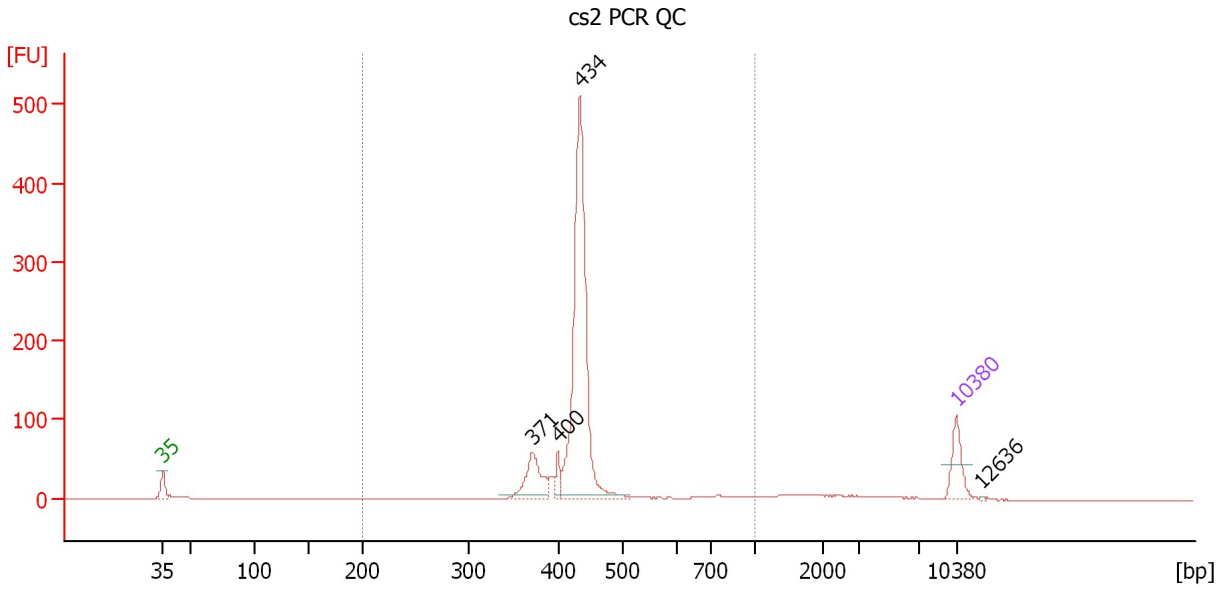
... Region table for sample 2 : Dekas cast7 RNA library

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]	Conc. [pg/μl]
200	406	1,000	2,270.2	8,847.1	 94	33.5	2,056.91

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-09-22\2015-09-22_004.xad

Created: 9/22/2015 2:12:50 PM
 Modified: 9/22/2015 2:54:12 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : cs2 PCR QC

Number of peaks found: 4 Corr. Area 1: 1,068.4
 Noise: 0.2

Peak table for sample 3 : cs2 PCR QC

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	371	151.45	618.0		75.60
3	400	35.64	135.1		77.86
4	434	911.75	3,186.3		79.79
5	10,380	75.00	10.9	Upper Marker	113.00
6	12,636	0.00	0.0		115.26

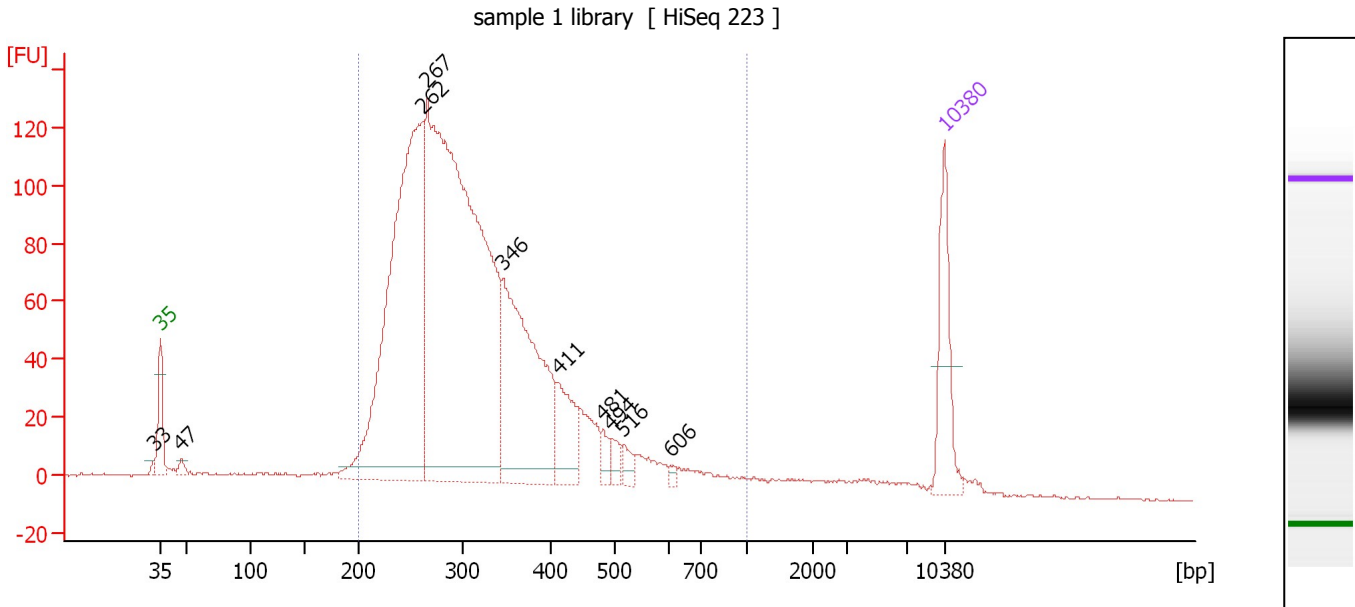
Region table for sample 3 : cs2 PCR QC

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]	Conc. [pg/μl]
200	438	1,000	1,068.4	4,180.4	91	16.3	1,182.40

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-09-22\2015-09-22_004.xad

Created: 9/22/2015 2:12:50 PM
 Modified: 9/22/2015 2:54:12 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : sample 1 library

Number of peaks found: 10 Corr. Area 1: 2,407.5
 Noise: 0.3

Peak table for sample 4 : sample 1 library

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	33	0.00	0.0		42.43
2	35	125.00	5,411.3	Lower Marker	43.00
3	47	11.27	363.7		44.86
4	262	706.68	4,082.3		66.41
5	267	1,145.01	6,500.5		66.84
6	346	338.17	1,483.0		73.55
7	411	75.14	277.1		78.50
8	481	16.98	53.4		82.50
9	494	17.01	52.2		83.21
10	516	14.13	41.5		84.31
11	606	4.54	11.3		88.49
12	10,380	75.00	10.9	Upper Marker	113.00

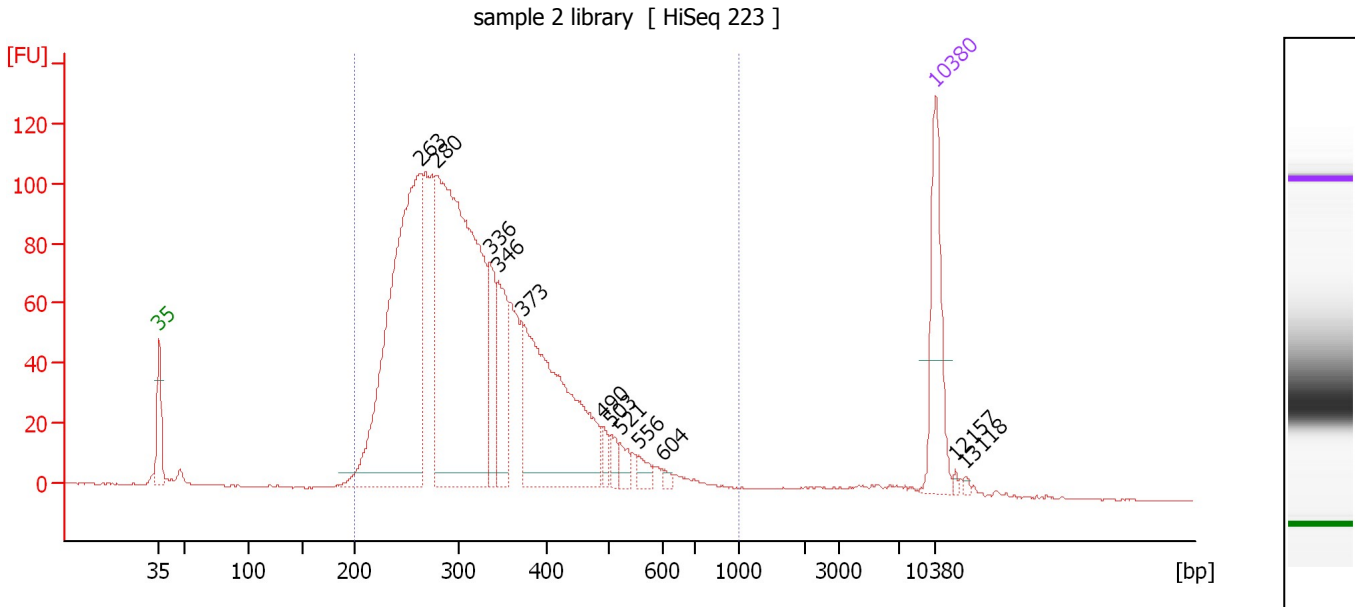
Region table for sample 4 : sample 1 library

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]	Conc. [pg/μl]
200	326	1,000	2,407.5	12,129.1	94	30.8	2,387.37

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-09-22\2015-09-22_004.xad

Created: 9/22/2015 2:12:50 PM
 Modified: 9/22/2015 2:54:12 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : sample 2 library

Number of peaks found: 12 Corr. Area 1: 2,177.6
 Noise: 0.2

Peak table for sample 5 : sample 2 library

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	263	525.07	3,021.2		66.51
3	280	618.73	3,350.2		68.05
4	336	73.66	332.0		72.81
5	346	80.96	354.7		73.58
6	373	292.56	1,188.3		75.74
7	490	12.97	40.1		83.00
8	503	13.41	40.4		83.72
9	521	14.66	42.7		84.54
10	556	11.79	32.1		86.22
11	604	3.94	9.9		88.43
12	10,380	75.00	10.9	Upper Marker	113.00
13	12,157	0.00	0.0		114.78
14	13,118	0.00	0.0		115.74

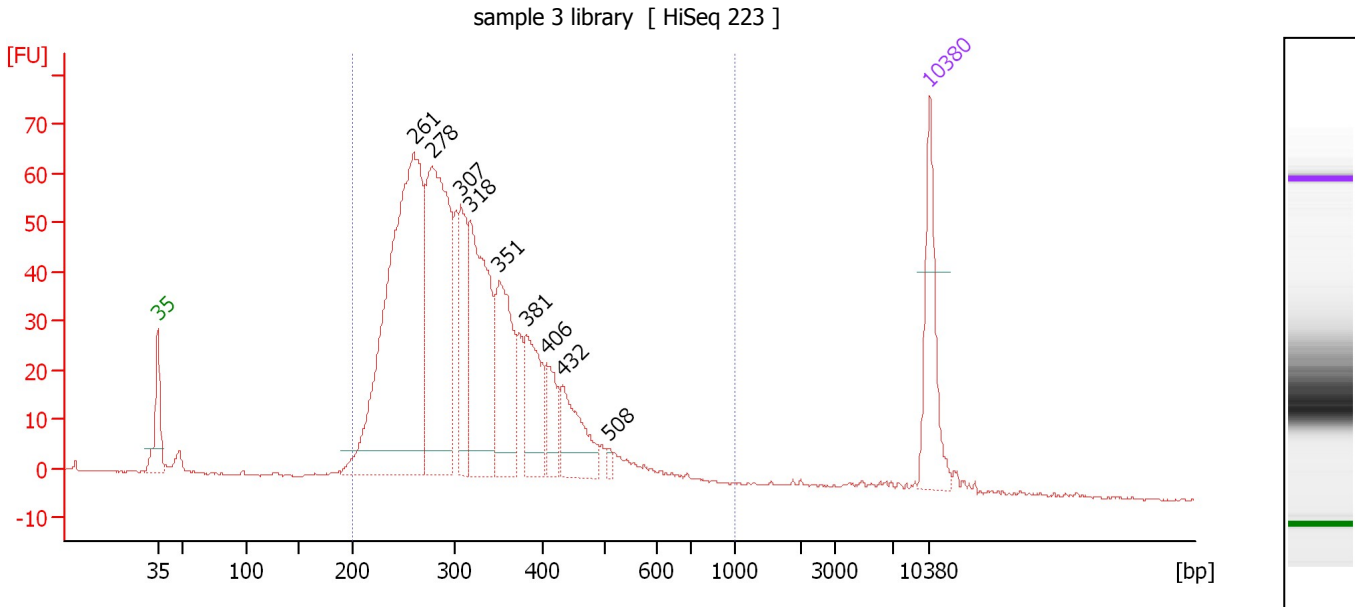
Region table for sample 5 : sample 2 library

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]	Conc. [pg/μl]
200	333	1,000	2,177.6	9,581.0	97	28.8	1,932.81

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-09-22\2015-09-22_004.xad

Created: 9/22/2015 2:12:50 PM
 Modified: 9/22/2015 2:54:12 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : sample 3 library

Number of peaks found: 9 Corr. Area 1: 1,235.2
 Noise: 0.1

Peak table for sample 6 : sample 3 library

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	261	612.89	3,563.7		66.25
3	278	374.71	2,044.6		67.85
4	307	104.32	514.4		70.51
5	318	227.04	1,083.2		71.33
6	351	145.60	628.5		73.99
7	381	90.49	359.5		76.40
8	406	45.54	169.8		78.24
9	432	75.07	263.4		79.69
10	508	5.96	17.8		83.95
11	10,380	75.00	10.9	Upper Marker	113.00

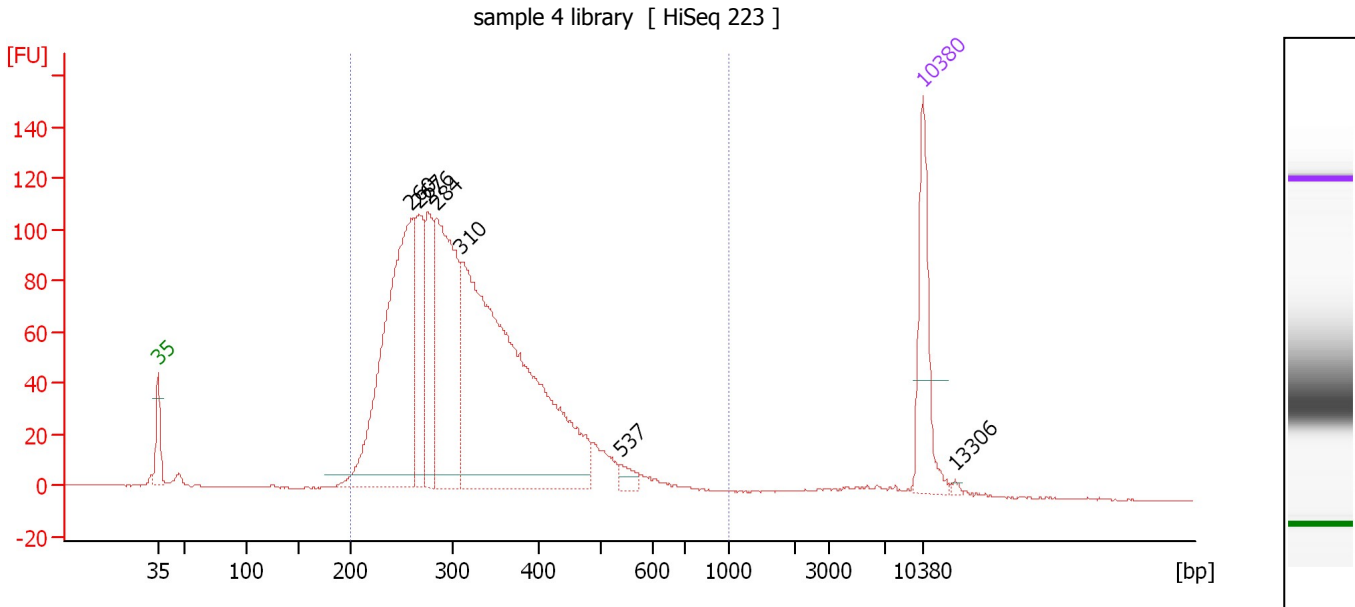
Region table for sample 6 : sample 3 library

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]	Conc. [pg/μl]
200	322	1,000	1,235.2	9,402.1	97	26.0	1,862.20

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-09-22\2015-09-22_004.xad

Created: 9/22/2015 2:12:50 PM
 Modified: 9/22/2015 2:54:12 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : sample 4 library

Number of peaks found: 7 Corr. Area 1: 2,145.8
 Noise: 0.2

Peak table for sample 7 : sample 4 library

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	260	433.05	2,524.9		66.19
3	267	127.46	724.2		66.82
4	276	111.60	612.5		67.70
5	284	290.68	1,548.2		68.48
6	310	698.81	3,415.4		70.73
7	537	12.08	34.1		85.32
8	10,380	75.00	10.9	Upper Marker	113.00
9	13,306	0.00	0.0		115.93

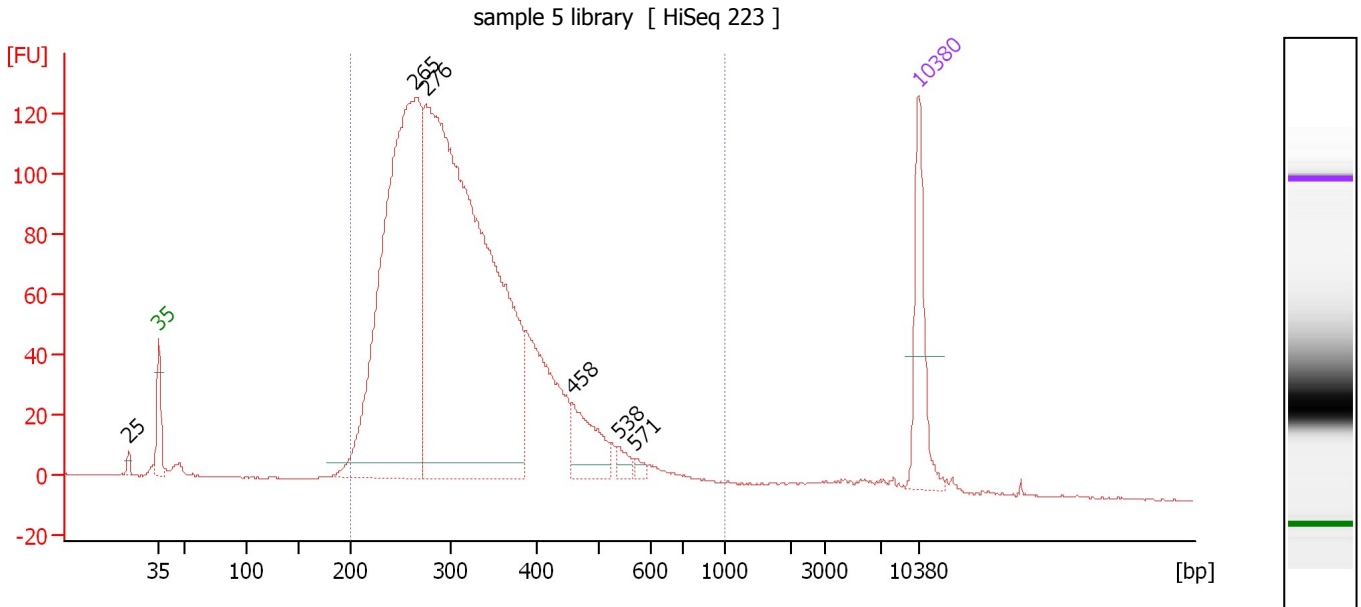
Region table for sample 7 : sample 4 library

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]	Conc. [pg/μl]
200	327	1,000	2,145.8	8,451.1	97	26.8	1,688.68

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-09-22\2015-09-22_004.xad

Created: 9/22/2015 2:12:50 PM
 Modified: 9/22/2015 2:54:12 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : sample 5 library

Number of peaks found: 6 Corr. Area 1: 2,498.8
 Noise: 0.2

Peak table for sample 8 : sample 5 library

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	25	0.00	0.0		40.25
2	35	125.00	5,411.3	Lower Marker	43.00
3	265	822.14	4,704.6		66.64
4	276	1,252.70	6,880.8		67.68
5	458	71.24	235.9		81.15
6	538	13.21	37.2		85.37
7	571	6.19	16.4		86.95
8	10,380	75.00	10.9	Upper Marker	113.00

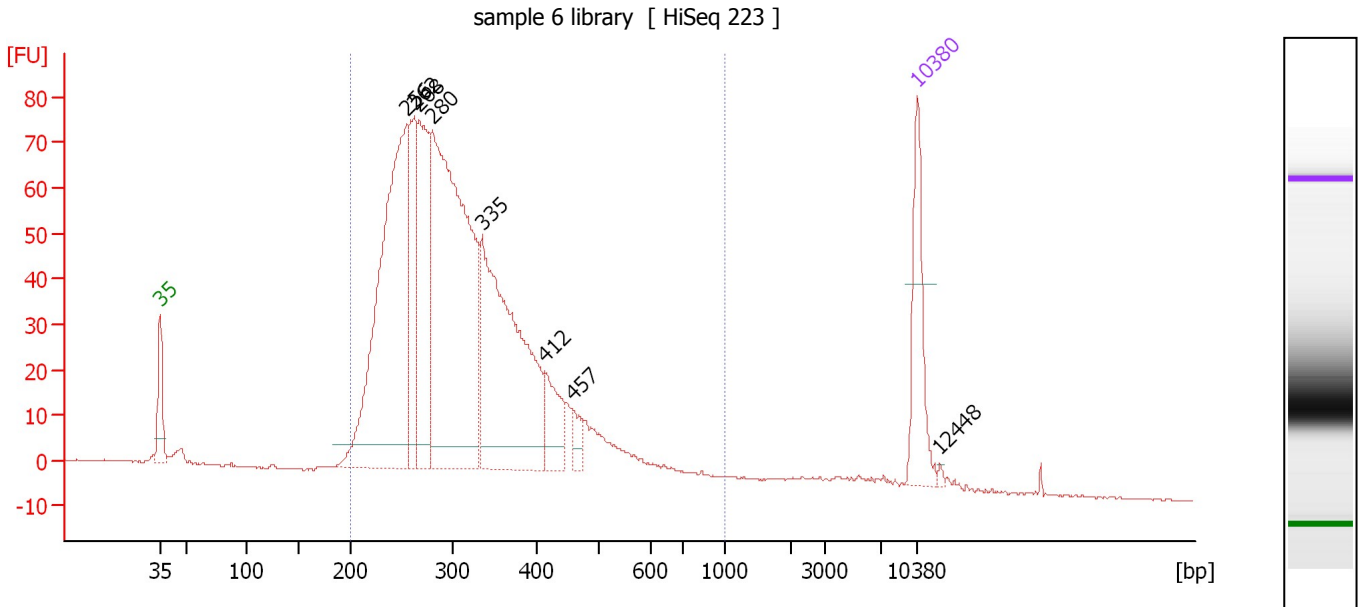
Region table for sample 8 : sample 5 library

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]	Conc. [pg/μl]
200	325	1,000	2,498.8	11,948.6	96	28.7	2,364.95

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-09-22\2015-09-22_004.xad

Created: 9/22/2015 2:12:50 PM
 Modified: 9/22/2015 2:54:12 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : sample 6 library

Number of peaks found: 8 Corr. Area 1: 1,484.0
 Noise: 0.2

Peak table for sample 9 : sample 6 library

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	256	541.40	3,204.6		65.82
3	262	133.49	771.0		66.42
4	268	198.46	1,121.5		66.96
5	280	636.18	3,439.0		68.09
6	335	401.00	1,812.9		72.73
7	412	59.29	218.3		78.54
8	457	19.81	65.7		81.11
9	10,380	75.00	10.9	Upper Marker	113.00
10	12,448	0.00	0.0		115.07

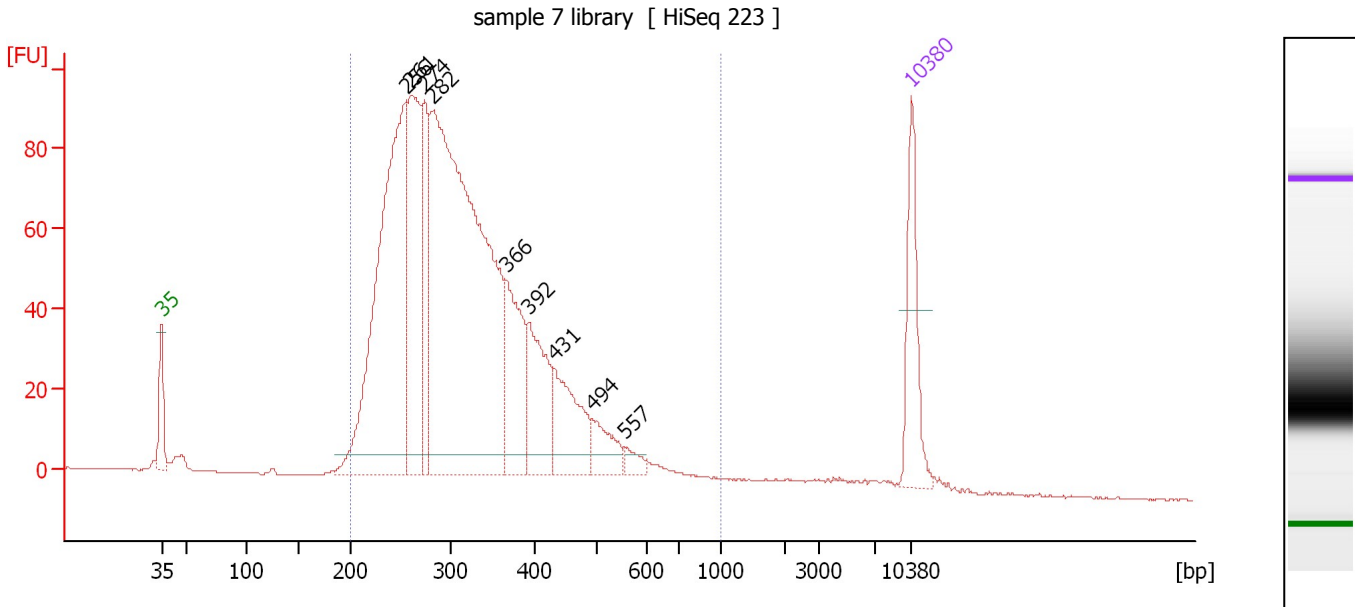
Region table for sample 9 : sample 6 library

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]	Conc. [pg/μl]
200	321	1,000	1,484.0	10,894.6	96	28.6	2,134.26

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-09-22\2015-09-22_004.xad

Created: 9/22/2015 2:12:50 PM
 Modified: 9/22/2015 2:54:12 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : sample 7 library

Number of peaks found: 9 Corr. Area 1: 1,912.8
 Noise: 0.1

Peak table for sample 10 : sample 7 library

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	256	585.13	3,466.6		65.80
3	261	259.66	1,510.0		66.25
4	274	127.68	705.0		67.54
5	282	967.84	5,201.9		68.24
6	366	140.88	583.6		75.16
7	392	114.48	442.4		77.25
8	431	103.86	365.1		79.64
9	494	43.75	134.1		83.23
10	557	14.20	38.6		86.26
11	10,380	75.00	10.9	Upper Marker	113.00

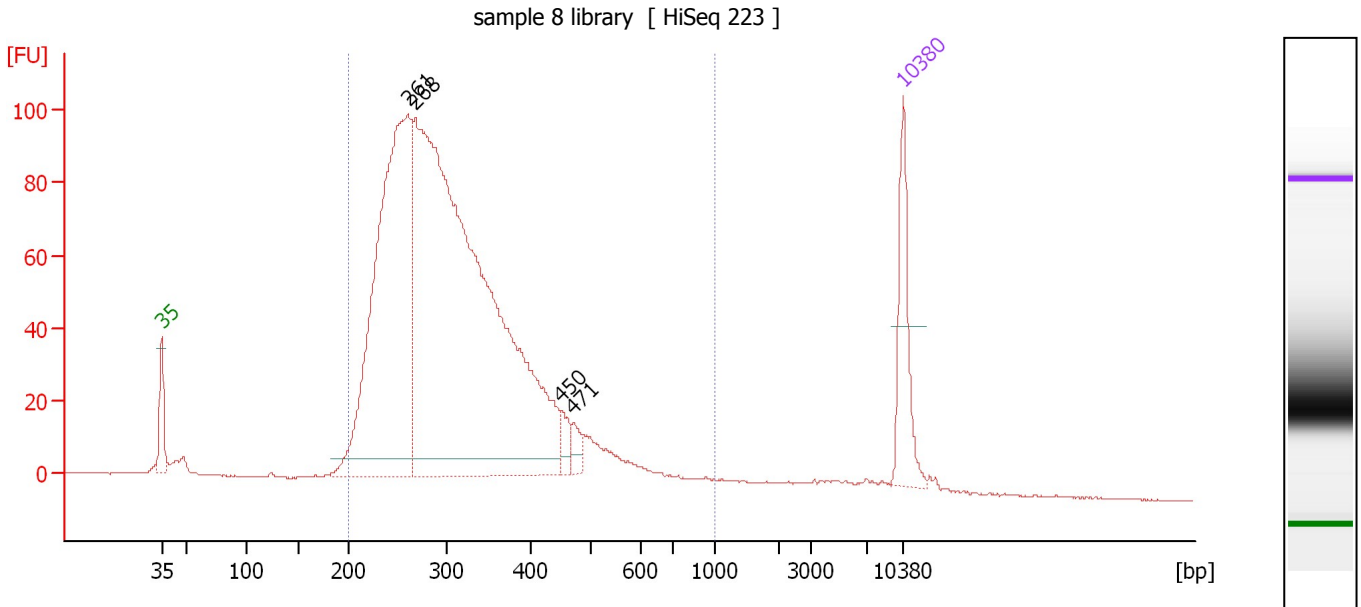
Region table for sample 10 : sample 7 library

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]	Conc. [pg/μl]
200	327	1,000	1,912.8	12,072.8	96	29.2	2,392.57

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-09-22\2015-09-22_004.xad

Created: 9/22/2015 2:12:50 PM
 Modified: 9/22/2015 2:54:12 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : sample 8 library

Number of peaks found: 4 Corr. Area 1: 1,894.9
 Noise: 0.2

Peak table for sample 11 : sample 8 library

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	261	738.66	4,295.6		66.25
3	268	1,460.34	8,269.9		66.90
4	450	20.14	67.8		80.74
5	471	16.70	53.7		81.90
6	10,380	75.00	10.9	Upper Marker	113.00

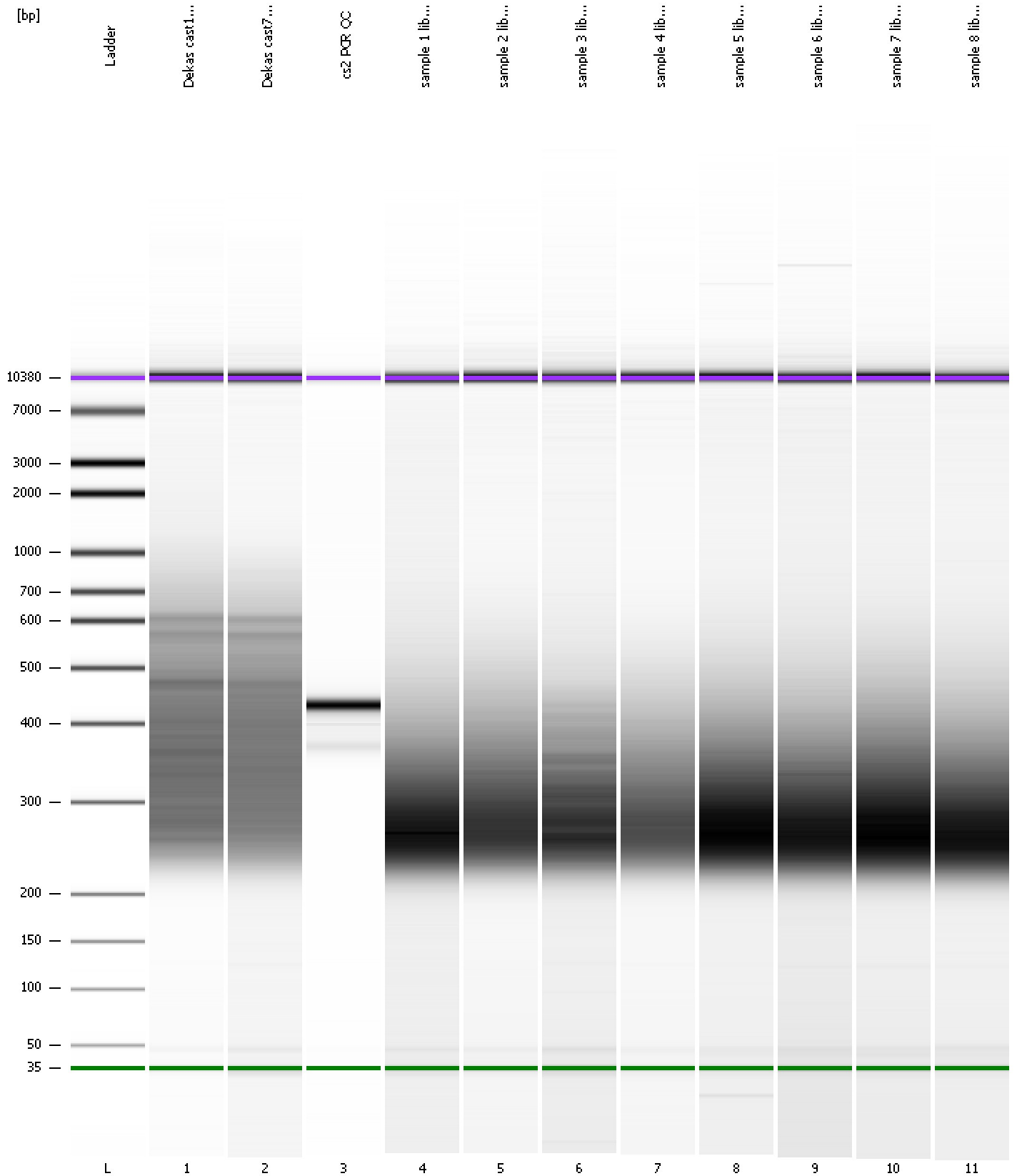
Region table for sample 11 : sample 8 library

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]	Conc. [pg/μl]
200	321	1,000	1,894.9	11,557.5	95	29.6	2,251.77

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-09-22\2015-09-22_004.xad

Created: 9/22/2015 2:12:50 PM
Modified: 9/22/2015 2:54:12 PM

Gel Image

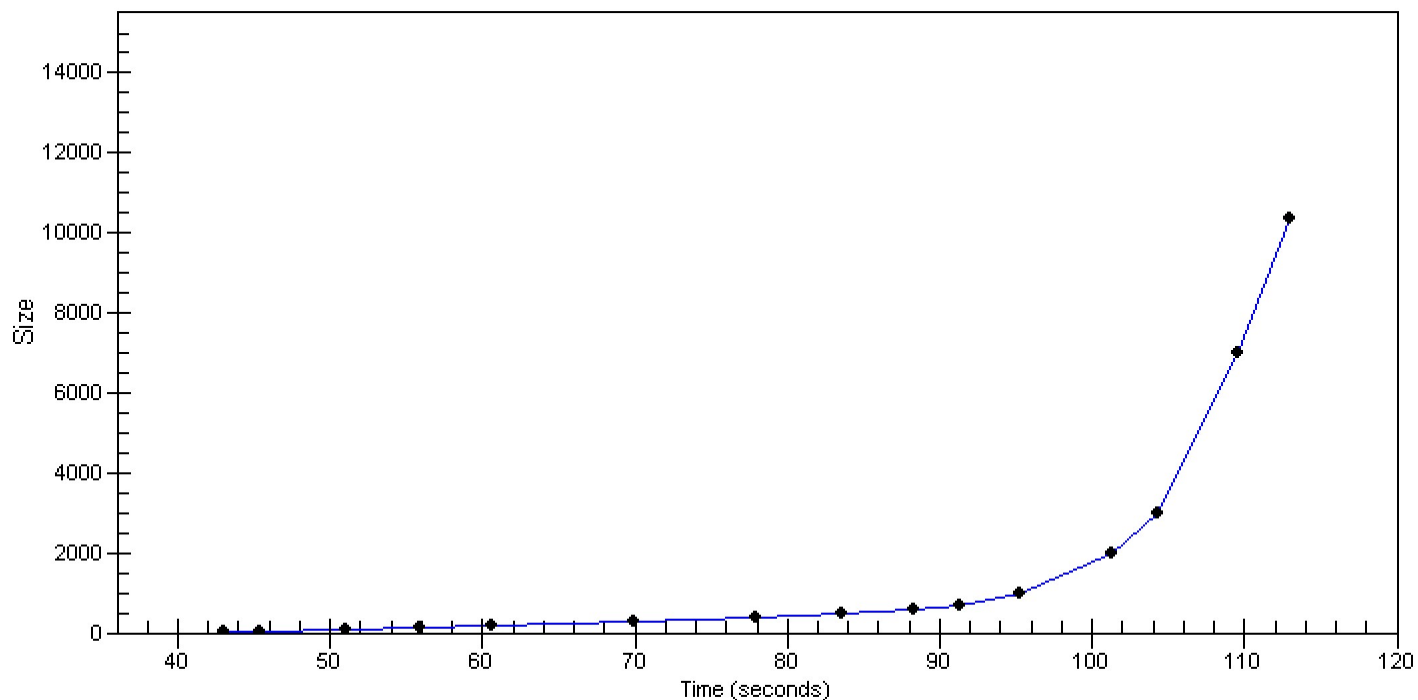


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-09-22\2015-09-22_004.xad

Created: 9/22/2015 2:12:50 PM
Modified: 9/22/2015 2:54:12 PM

Curves

Standard Curve



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-09-22\2015-09-22_004.xad

Created: 9/22/2015 2:12:50 PM
 Modified: 9/22/2015 2:54:12 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		9/22/2015 2:54:10 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2015-09-22\2015-09-22_004.xad)		Instrument	Run		9/22/2015 2:12:55 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		9/22/2015 2:12:55 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		9/22/2015 2:12:55 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		9/22/2015 2:12:55 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		9/22/2015 2:12:55 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		9/22/2015 2:12:55 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		9/22/2015 2:12:55 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1