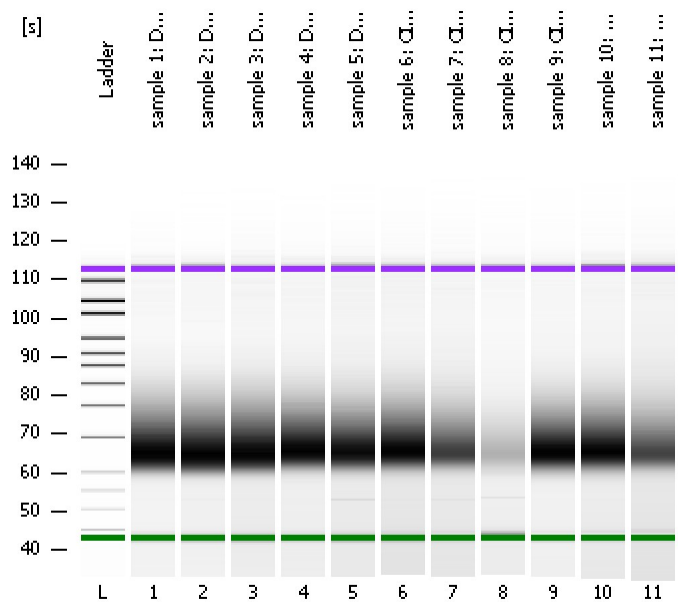


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-13\2015-10-13\_001.xad

Created: 10/13/2015 11:00:48 AM  
Modified: 10/13/2015 11:57:01 AM

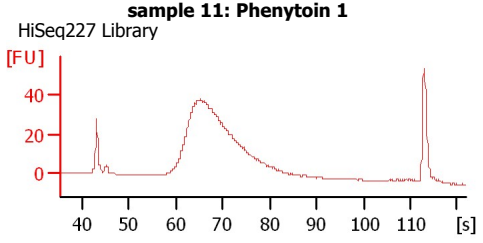
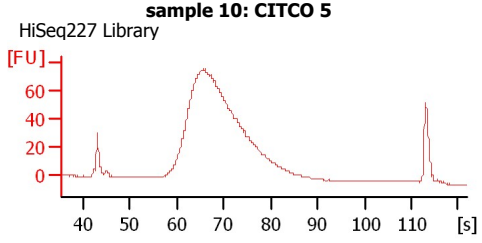
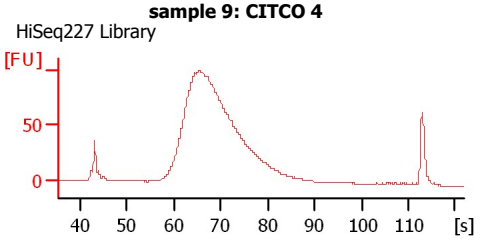
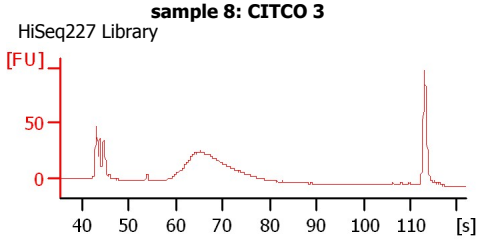
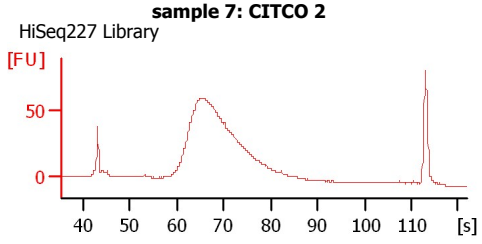
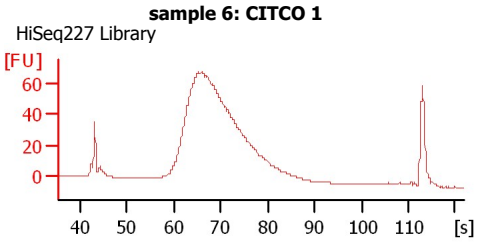
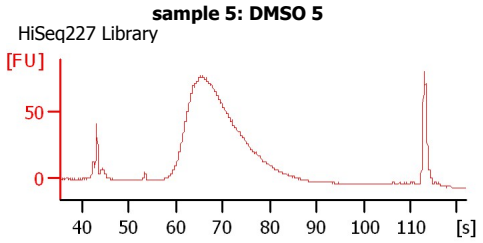
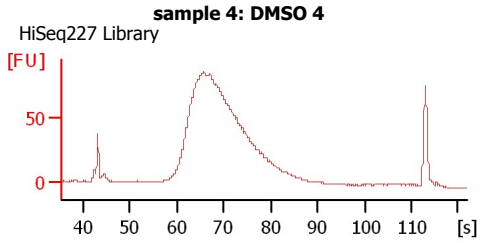
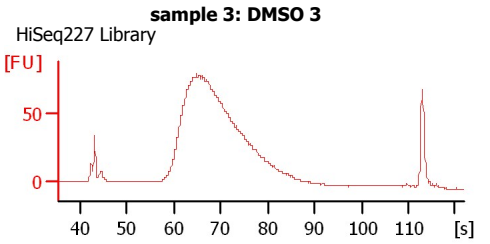
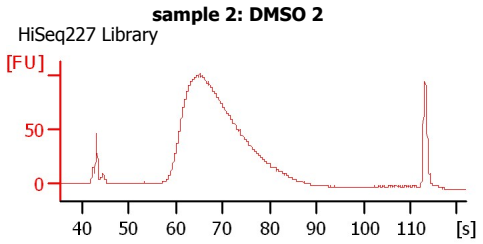
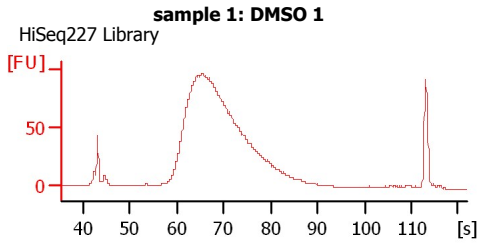
### Electrophoresis File Run Summary



**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:     



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-13\2015-10-13\_001.xad

Created: 10/13/2015 11:00:48 AM  
 Modified: 10/13/2015 11:57:01 AM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
sample 1: DMSO 1	HiSeq227 Library	<input type="checkbox"/>	✓			
sample 2: DMSO 2	HiSeq227 Library	<input type="checkbox"/>	✓			
sample 3: DMSO 3	HiSeq227 Library	<input type="checkbox"/>	✓			
sample 4: DMSO 4	HiSeq227 Library	<input type="checkbox"/>	✓			
sample 5: DMSO 5	HiSeq227 Library	<input type="checkbox"/>	✓			
sample 6: CITCO 1	HiSeq227 Library	<input type="checkbox"/>	✓			
sample 7: CITCO 2	HiSeq227 Library	<input type="checkbox"/>	✓			
sample 8: CITCO 3	HiSeq227 Library	<input type="checkbox"/>	✓			
sample 9: CITCO 4	HiSeq227 Library	<input type="checkbox"/>	✓			
sample 10: CITCO 5	HiSeq227 Library	<input type="checkbox"/>	✓			
sample 11: Phenytoin 1	HiSeq227 Library	<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\2015-10-13\2015-10-13\_001.xad

Created: 10/13/2015 11:00:48 AM  
Modified: 10/13/2015 11:57:01 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] : 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

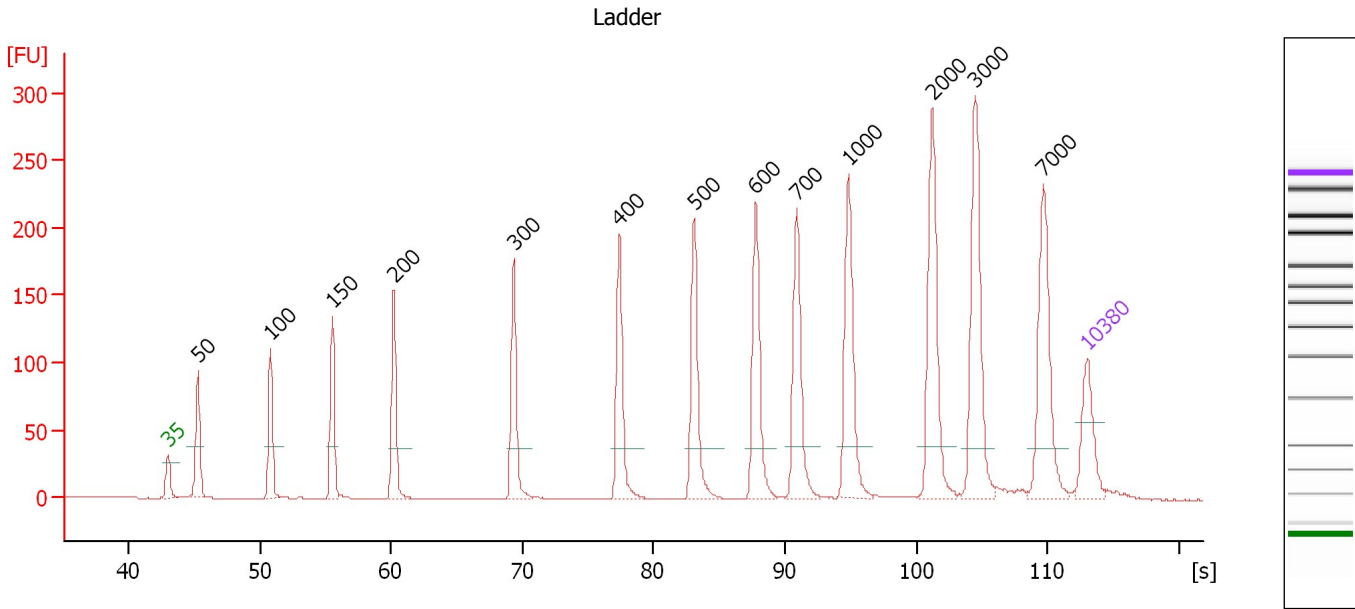
**Ladder**

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\2015-10-13\2015-10-13\_001.xad

Created: 10/13/2015 11:00:48 AM  
 Modified: 10/13/2015 11:57:01 AM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.2

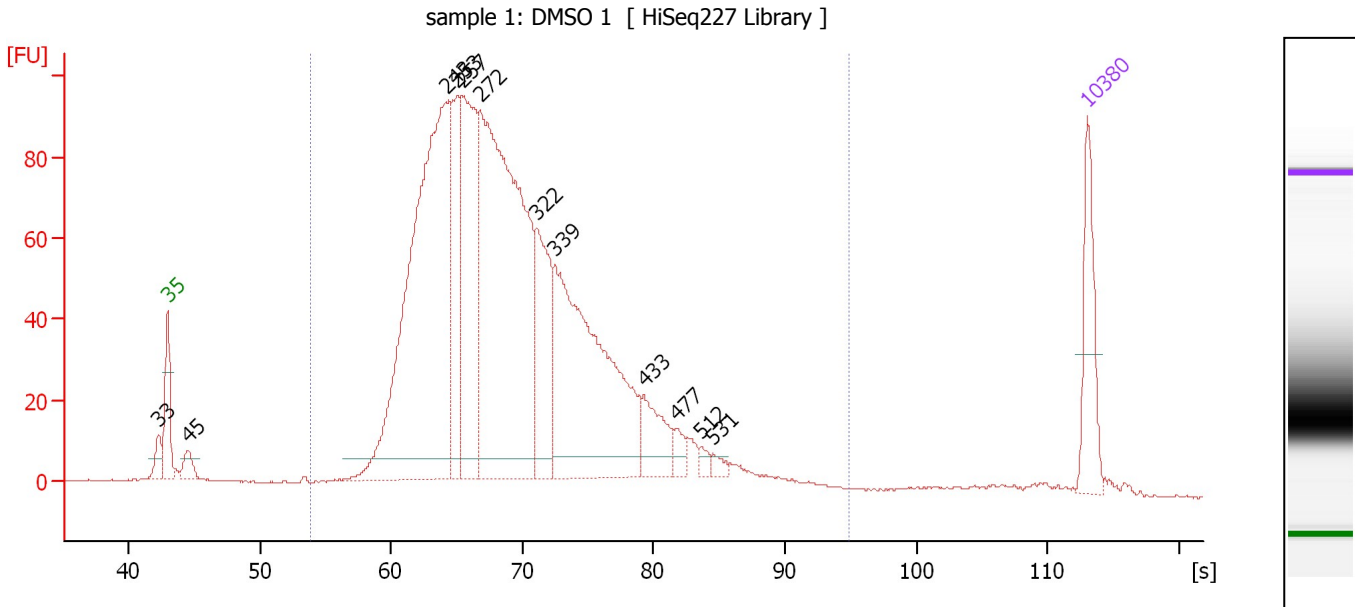
**Peak table for Ladder**

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	50.84
4	150	150.00	1,515.2	Ladder Peak	55.54
5	200	150.00	1,136.4	Ladder Peak	60.24
6	300	150.00	757.6	Ladder Peak	69.36
7	400	150.00	568.2	Ladder Peak	77.38
8	500	150.00	454.5	Ladder Peak	83.08
9	600	150.00	378.8	Ladder Peak	87.78
10	700	150.00	324.7	Ladder Peak	90.88
11	1,000	150.00	227.3	Ladder Peak	94.85
12	2,000	150.00	113.6	Ladder Peak	101.23
13	3,000	150.00	75.8	Ladder Peak	104.47
14	7,000	150.00	32.5	Ladder Peak	109.67
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-13\2015-10-13\_001.xad

Created: 10/13/2015 11:00:48 AM  
 Modified: 10/13/2015 11:57:01 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : sample 1: DMSO 1**

Number of peaks found: 12                      Corr. Area 1: 2,044.2  
 Noise: 0.1

**Peak table for sample 1 : sample 1: DMSO 1**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	33	0.00	0.0		42.31
2	35	125.00	5,411.3	Lower Marker	43.00
3	45	30.55	1,031.9		44.53
4	243	909.32	5,658.5		64.20
5	253	164.12	984.4		65.04
6	257	331.99	1,959.7		65.41
7	272	832.19	4,637.2		66.80
8	322	168.41	793.1		71.10
9	339	498.58	2,228.2		72.49
10	433	69.45	243.2		79.25
11	477	19.58	62.1		81.80
12	512	10.20	30.2		83.65
13	531	9.80	28.0		84.53
14	10,380	75.00	10.9	Upper Marker	113.00

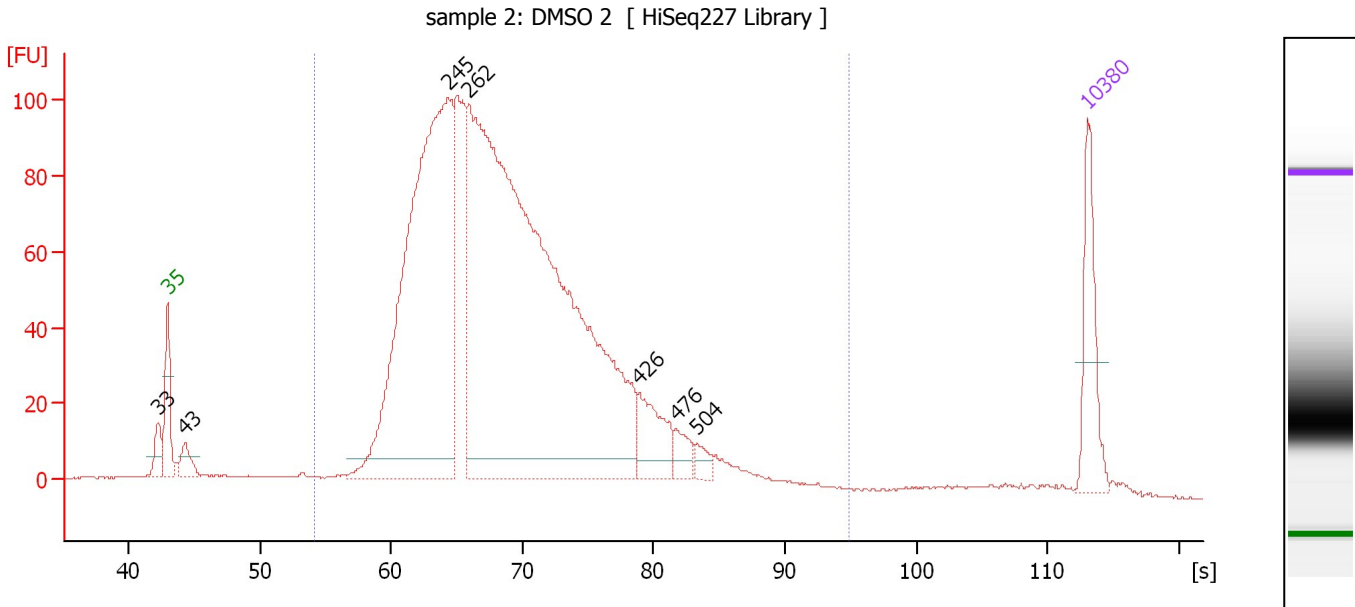
**Region table for sample 1 : sample 1: DMSO 1**

From [s]	To [s]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
53.94	94.85	308	2,044.2	17,460.3	3,243.27	96	29.7

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-13\2015-10-13\_001.xad

Created: 10/13/2015 11:00:48 AM  
 Modified: 10/13/2015 11:57:01 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : sample 2: DMSO 2**

Number of peaks found: 7                      Corr. Area 1: 2,193.7  
 Noise: 0.1

**Peak table for sample 2 : sample 2: DMSO 2**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	33	0.00	0.0		42.29
2	35	125.00	5,411.3	Lower Marker	43.00
3	43	32.95	1,147.9		44.32
4	245	938.88	5,802.3		64.36
5	262	1,678.46	9,718.6		65.86
6	426	77.03	273.7		78.89
7	476	26.26	83.6		81.72
8	504	16.43	49.4		83.27
9	10,380	75.00	10.9	Upper Marker	113.00

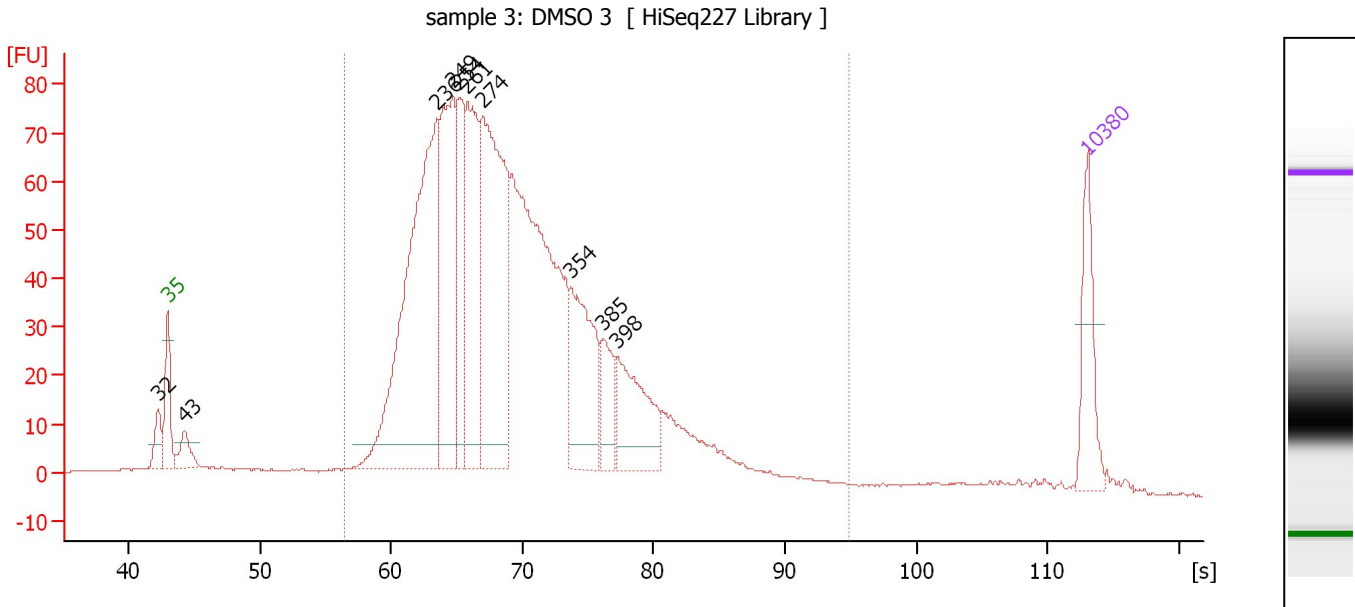
**Region table for sample 2 : sample 2: DMSO 2**

From [s]	To [s]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
54.26	94.85	304	2,193.7	16,249.5	2,975.94	95	29.5

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-13\2015-10-13\_001.xad

Created: 10/13/2015 11:00:48 AM  
 Modified: 10/13/2015 11:57:01 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : sample 3: DMSO 3**

Number of peaks found: 10                      Corr. Area 1: 1,680.7  
 Noise: 0.2

**Peak table for sample 3 : sample 3: DMSO 3**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	32	0.00	0.0		42.29
2	35	125.00	5,411.3	Lower Marker	43.00
3	43	43.45	1,520.4		44.29
4	236	669.88	4,306.9		63.49
5	249	319.21	1,940.4		64.73
6	254	165.78	987.1		65.21
7	261	260.23	1,509.2		65.83
8	274	469.26	2,596.8		66.97
9	354	192.06	822.2		73.69
10	385	69.49	273.6		76.17
11	398	137.39	522.4		77.26
12	10,380	75.00	10.9	Upper Marker	113.00

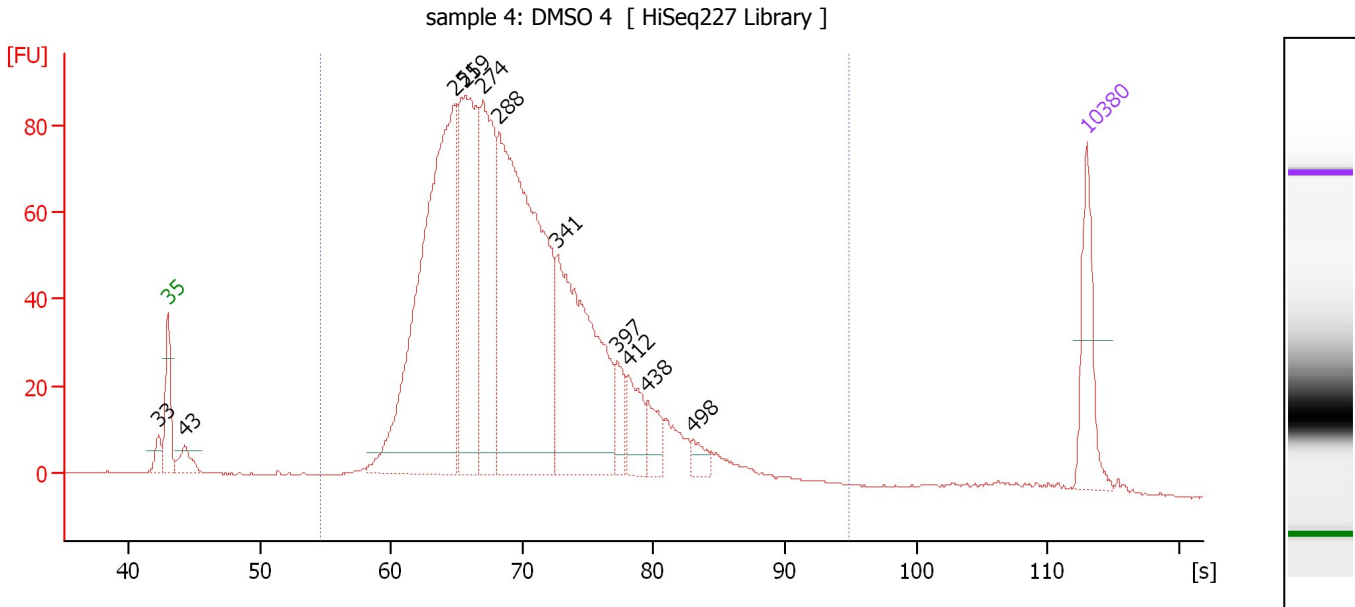
**Region table for sample 3 : sample 3: DMSO 3**

From [s]	To [s]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
56.46	94.85	310	1,680.7	17,671.1	3,292.54	93	30.0

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-13\2015-10-13\_001.xad

Created: 10/13/2015 11:00:48 AM  
 Modified: 10/13/2015 11:57:01 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : sample 4: DMSO 4**

Number of peaks found: 11                      Corr. Area 1: 1,761.2  
 Noise: 0.2

**Peak table for sample 4 : sample 4: DMSO 4**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	33	0.00	0.0		42.32
2	35	125.00	5,411.3	Lower Marker	43.00
3	43	35.06	1,232.4		44.26
4	251	754.72	4,563.5		64.85
5	259	392.85	2,297.6		65.62
6	274	288.56	1,596.2		66.98
7	288	744.60	3,921.6		68.23
8	341	382.34	1,696.7		72.68
9	397	41.00	156.3		77.18
10	412	59.69	219.7		78.05
11	438	39.68	137.3		79.55
12	498	18.68	56.8		82.98
13	10,380	75.00	10.9	Upper Marker	113.00

**Region table for sample 4 : sample 4: DMSO 4**

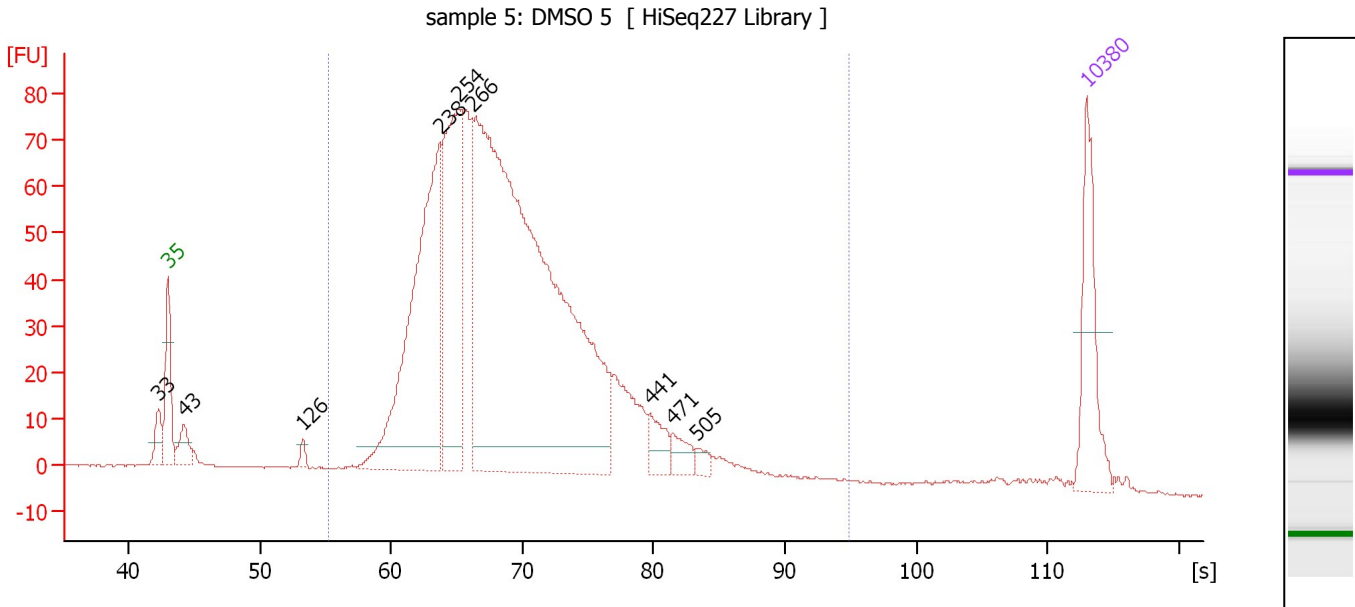
From [s]	To [s]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
54.57	94.85	313	1,761.2	15,621.2	2,967.71	95	28.8



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-13\2015-10-13\_001.xad

Created: 10/13/2015 11:00:48 AM  
 Modified: 10/13/2015 11:57:01 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : sample 5: DMSO 5**

Number of peaks found: 9                      Corr. Area 1: 1,516.8  
 Noise: 0.2

**Peak table for sample 5 : sample 5: DMSO 5**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	33	0.00	0.0		42.31
2	35	125.00	5,411.3	Lower Marker	43.00
3	43	33.68	1,189.2		44.23
4	126	9.17	110.5		53.26
5	238	433.67	2,759.3		63.72
6	254	294.56	1,758.9		65.14
7	266	1,184.63	6,744.8		66.27
8	441	30.35	104.3		79.72
9	471	22.03	70.9		81.44
10	505	9.55	28.7		83.30
11	10,380	75.00	10.9	Upper Marker	113.00

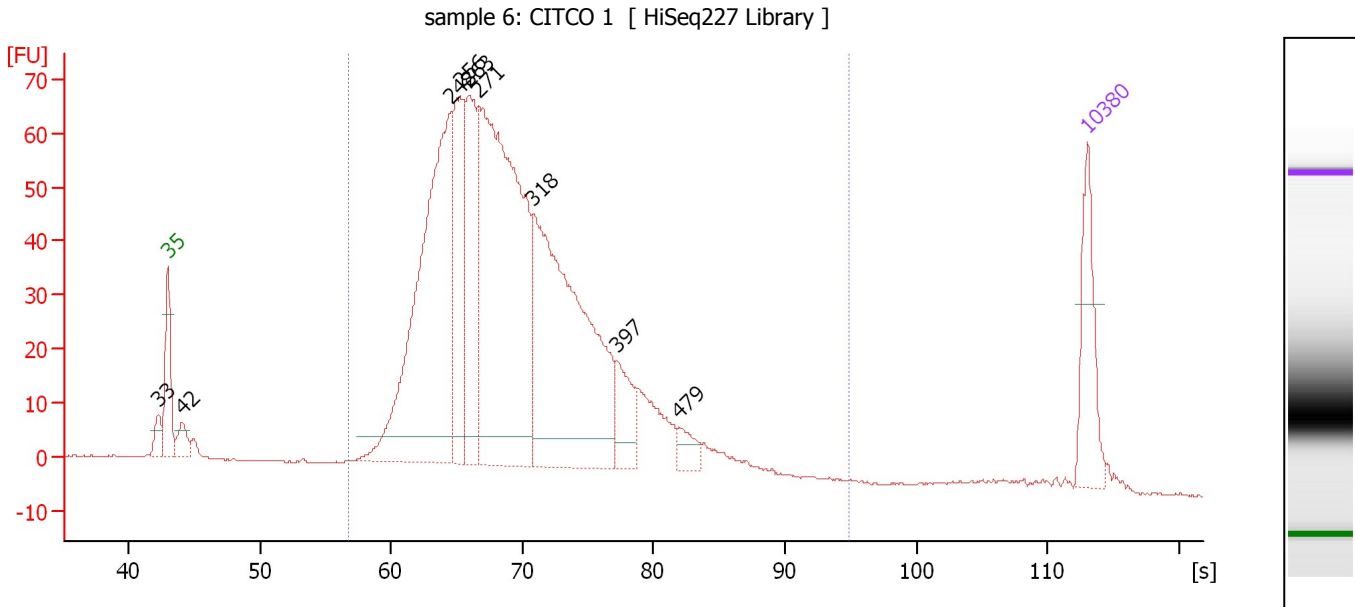
**Region table for sample 5 : sample 5: DMSO 5**

From [s]	To [s]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
55.19	94.85	307	1,516.8	11,883.5	2,219.13	93	29.0

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-13\2015-10-13\_001.xad

Created: 10/13/2015 11:00:48 AM  
 Modified: 10/13/2015 11:57:01 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : sample 6: CITCO 1**

Number of peaks found: 9                      Corr. Area 1: 1,327.7  
 Noise: 0.2

**Peak table for sample 6 : sample 6: CITCO 1**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	33	0.00	0.0		42.31
2	35	125.00	5,411.3	Lower Marker	43.00
3	42	33.13	1,185.9		44.14
4	248	601.77	3,683.5		64.57
5	256	202.75	1,201.6		65.31
6	263	210.21	1,212.5		65.95
7	271	718.70	4,013.1		66.74
8	318	570.71	2,720.3		70.79
9	397	61.54	234.8		77.16
10	479	25.34	80.1		81.90
11	10,380	75.00	10.9	Upper Marker	113.00

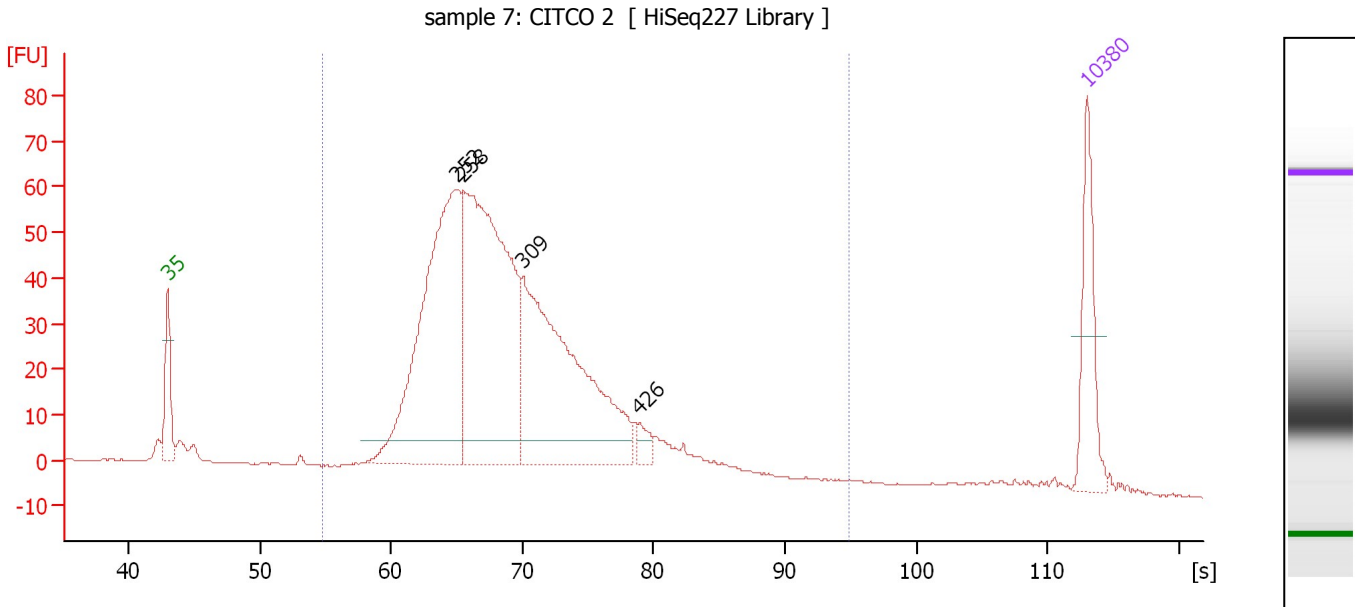
**Region table for sample 6 : sample 6: CITCO 1**

From [s]	To [s]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
56.84	94.85	309	1,327.7	13,628.0	2,579.39	95	26.1

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-13\2015-10-13\_001.xad

Created: 10/13/2015 11:00:48 AM  
 Modified: 10/13/2015 11:57:01 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : sample 7: CITCO 2**

Number of peaks found: 4                      Corr. Area 1: 1,101.1  
 Noise: 0.2

**Peak table for sample 7 : sample 7: CITCO 2**

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	252	538.08	3,232.9		65.00
3	258	589.31	3,465.2		65.50
4	309	459.17	2,253.6		70.06
5	426	17.47	62.1		78.88
6	10,380	75.00	10.9	Upper Marker	113.00

**Region table for sample 7 : sample 7: CITCO 2**

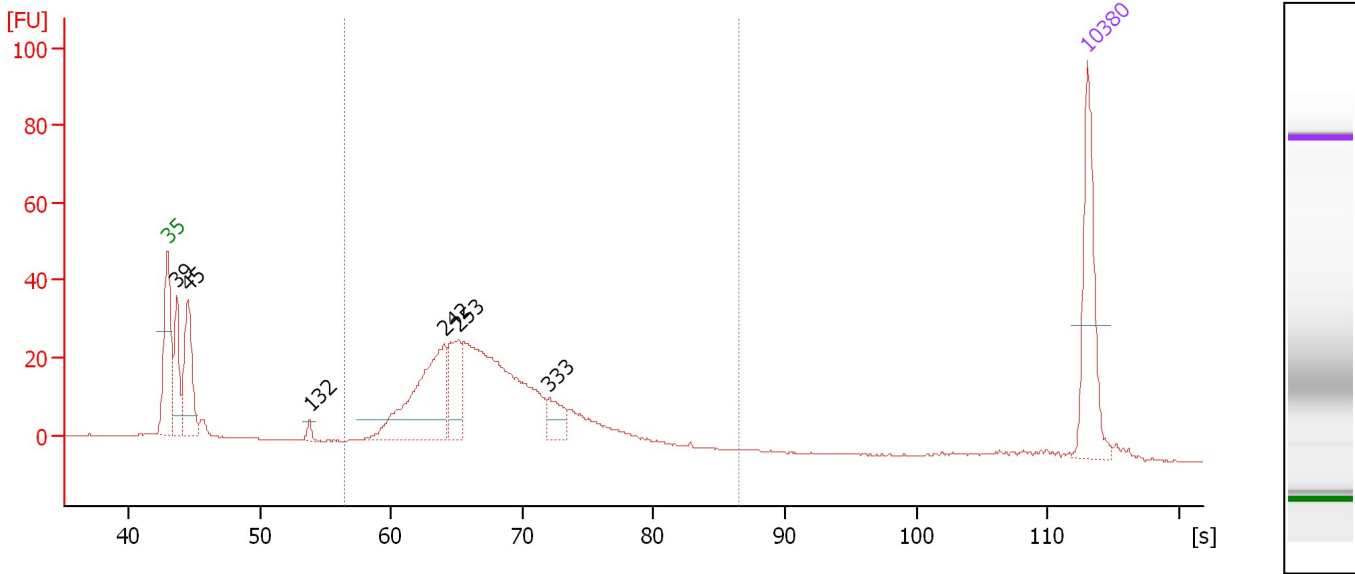
From [s]	To [s]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
54.79	94.85	305	1,101.1	9,411.2	1,760.16	95	27.0

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-13\2015-10-13\_001.xad

Created: 10/13/2015 11:00:48 AM  
 Modified: 10/13/2015 11:57:01 AM

**Electropherogram Summary Continued ...**

sample 8: CITCO 3 [ HiSeq227 Library ]



**Overall Results for sample 8 : sample 8: CITCO 3**

Number of peaks found: 6                      Corr. Area 1: 438.6  
 Noise: 0.2

**Peak table for sample 8 : sample 8: CITCO 3**

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	39	76.75	2,944.4		43.70
3	45	104.08	3,508.1		44.54
4	132	7.47	86.1		53.80
5	242	168.34	1,054.4		64.06
6	253	63.80	381.5		65.11
7	333	26.92	122.6		71.98
8	10,380	75.00	10.9	Upper Marker	113.00

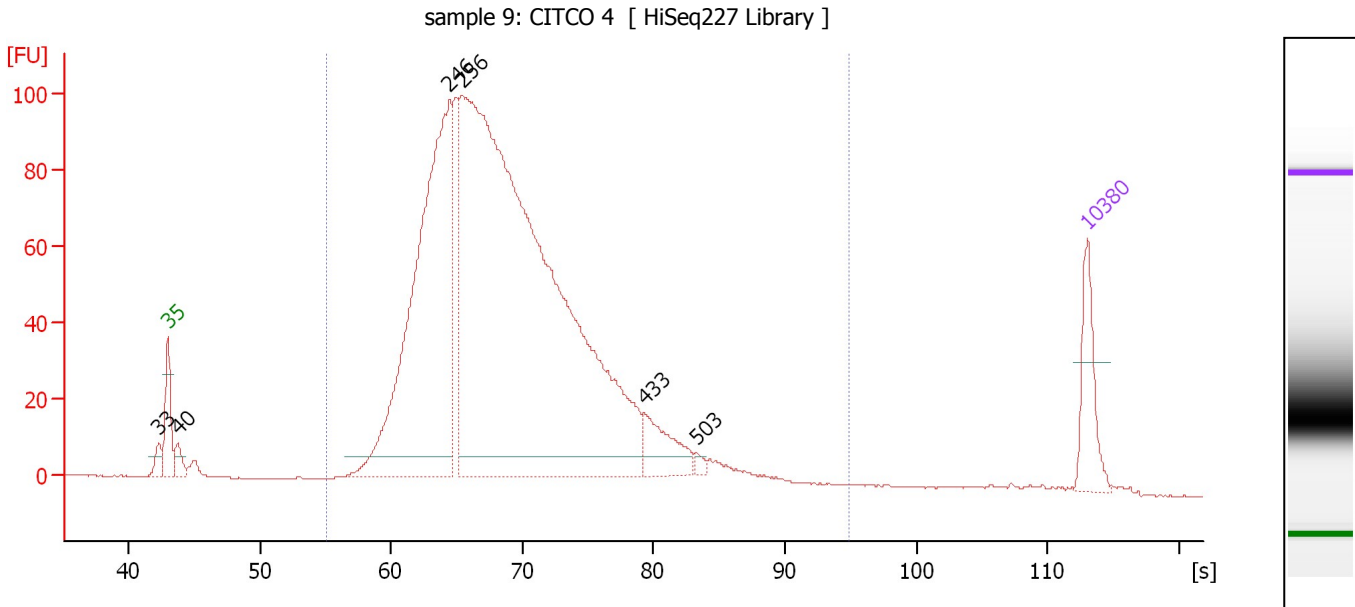
**Region table for sample 8 : sample 8: CITCO 3**

From [s]	To [s]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
56.51	86.46	285	438.6	3,458.7	619.60	77	20.5

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-13\2015-10-13\_001.xad

Created: 10/13/2015 11:00:48 AM  
 Modified: 10/13/2015 11:57:01 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : sample 9: CITCO 4**

Number of peaks found: 6                      Corr. Area 1: 1,897.6  
 Noise: 0.2

**Peak table for sample 9 : sample 9: CITCO 4**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	33	0.00	0.0		42.29
2	35	125.00	5,411.3	Lower Marker	43.00
3	40	32.76	1,244.2		43.76
4	246	998.04	6,149.2		64.43
5	256	2,420.83	14,301.8		65.39
6	433	89.53	313.3		79.27
7	503	9.57	28.8		83.22
8	10,380	75.00	10.9	Upper Marker	113.00

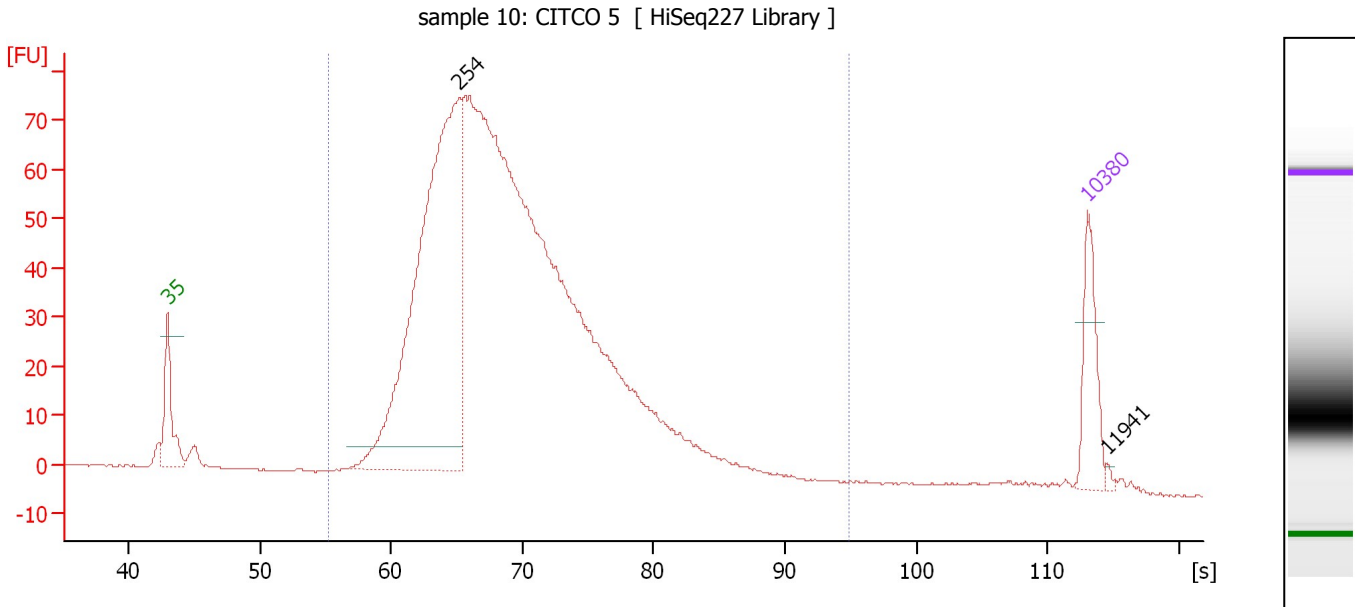
**Region table for sample 9 : sample 9: CITCO 4**

From [s]	To [s]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
55.12	94.85	304	1,897.6	19,627.1	3,640.19	97	28.3

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-13\2015-10-13\_001.xad

Created: 10/13/2015 11:00:48 AM  
 Modified: 10/13/2015 11:57:01 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : sample 10: CITCO 5**

Number of peaks found: 2                      Corr. Area 1: 1,428.8  
 Noise: 0.1

**Peak table for sample 10 : sample 10: CITCO 5**

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	254	964.94	5,749.5		65.19
3	10,380	75.00	10.9	Upper Marker	113.00
4	11,941	0.00	0.0		114.54

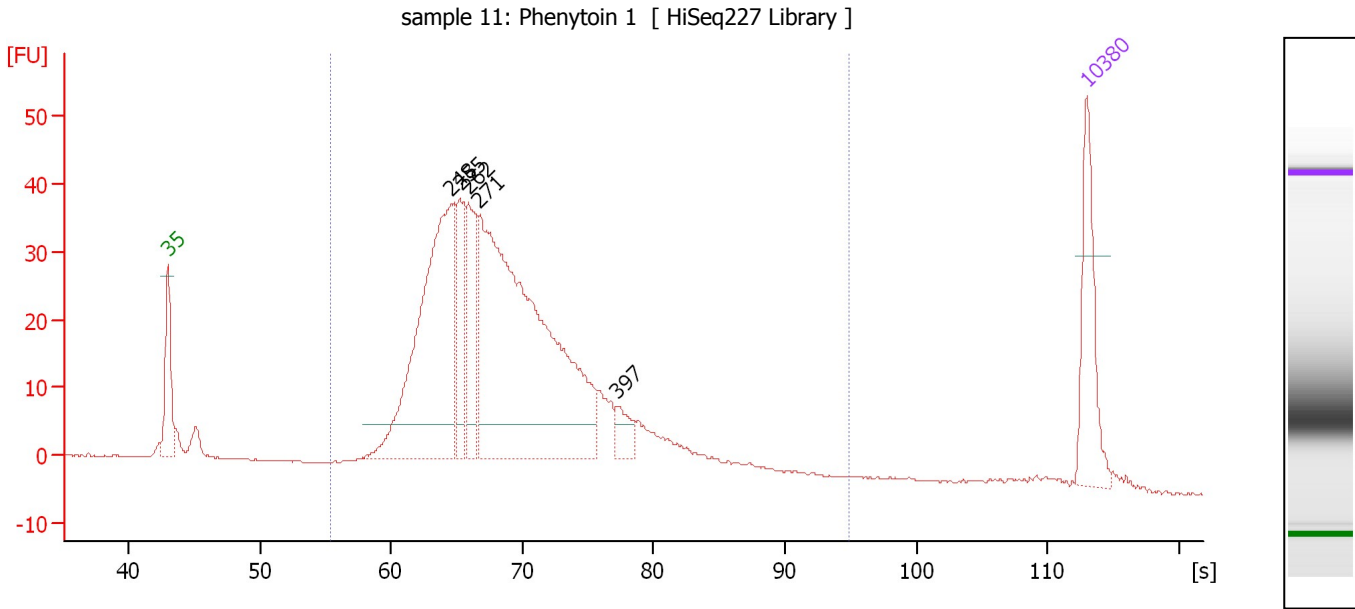
**Region table for sample 10 : sample 10: CITCO 5**

From [s]	To [s]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
55.31	94.85	306	1,428.8	16,287.5	3,049.58	98	27.1

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-13\2015-10-13\_001.xad

Created: 10/13/2015 11:00:48 AM  
 Modified: 10/13/2015 11:57:01 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : sample 11: Phenytoin 1**

Number of peaks found: 5                      Corr. Area 1: 690.9  
 Noise: 0.1

**Peak table for sample 11 : sample 11: Phenytoin 1**

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	248	413.23	2,529.2		64.57
3	255	95.69	568.7		65.25
4	262	110.88	640.5		65.92
5	271	664.15	3,708.1		66.75
6	397	24.13	92.1		77.15
7	10,380	75.00	10.9	Upper Marker	113.00

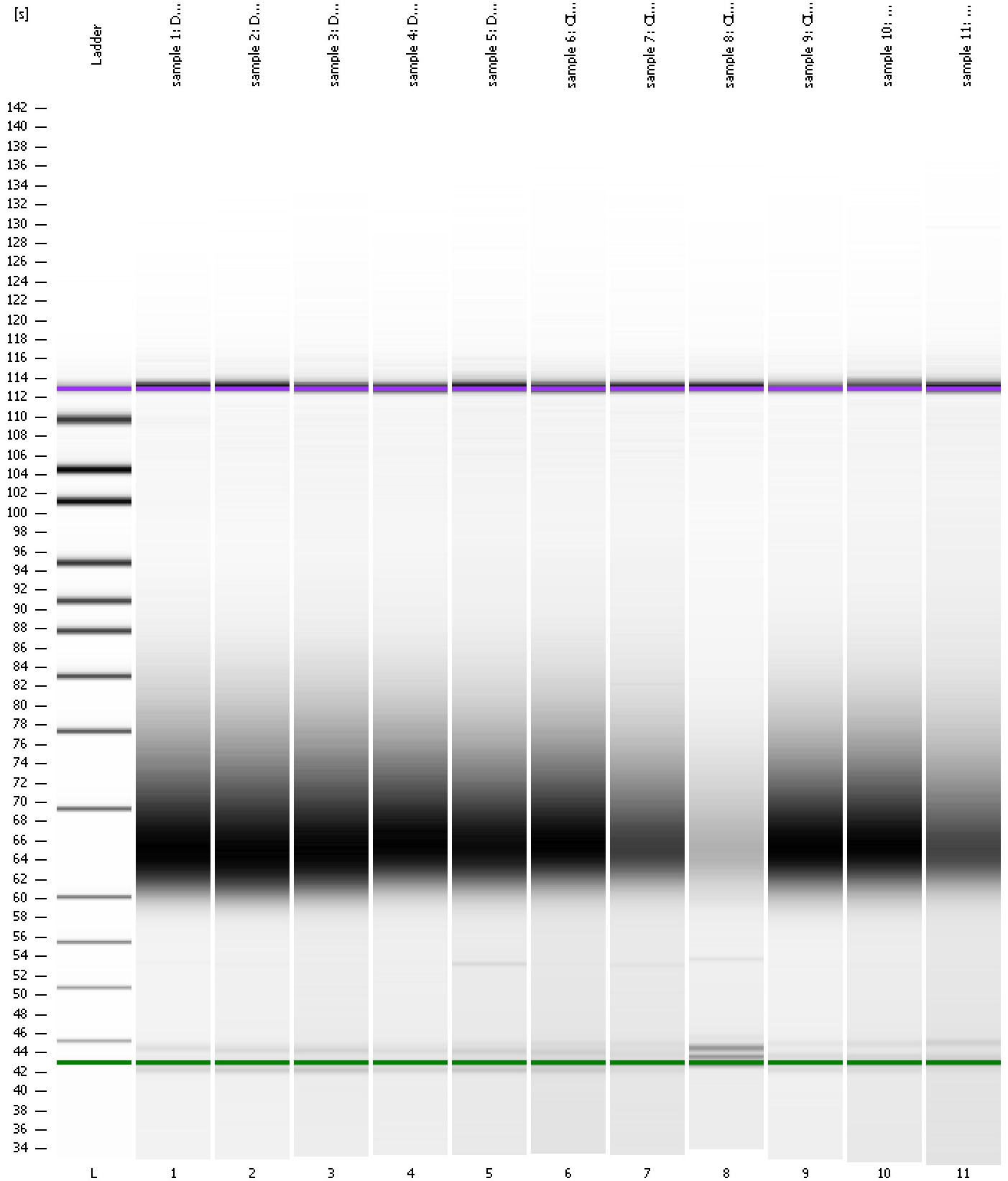
**Region table for sample 11 : sample 11: Phenytoin 1**

From [s]	To [s]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
55.33	94.85	307	690.9	8,136.0	1,519.39	95	29.1

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-13\2015-10-13\_001.xad

Created: 10/13/2015 11:00:48 AM  
Modified: 10/13/2015 11:57:01 AM

**Gel Image**



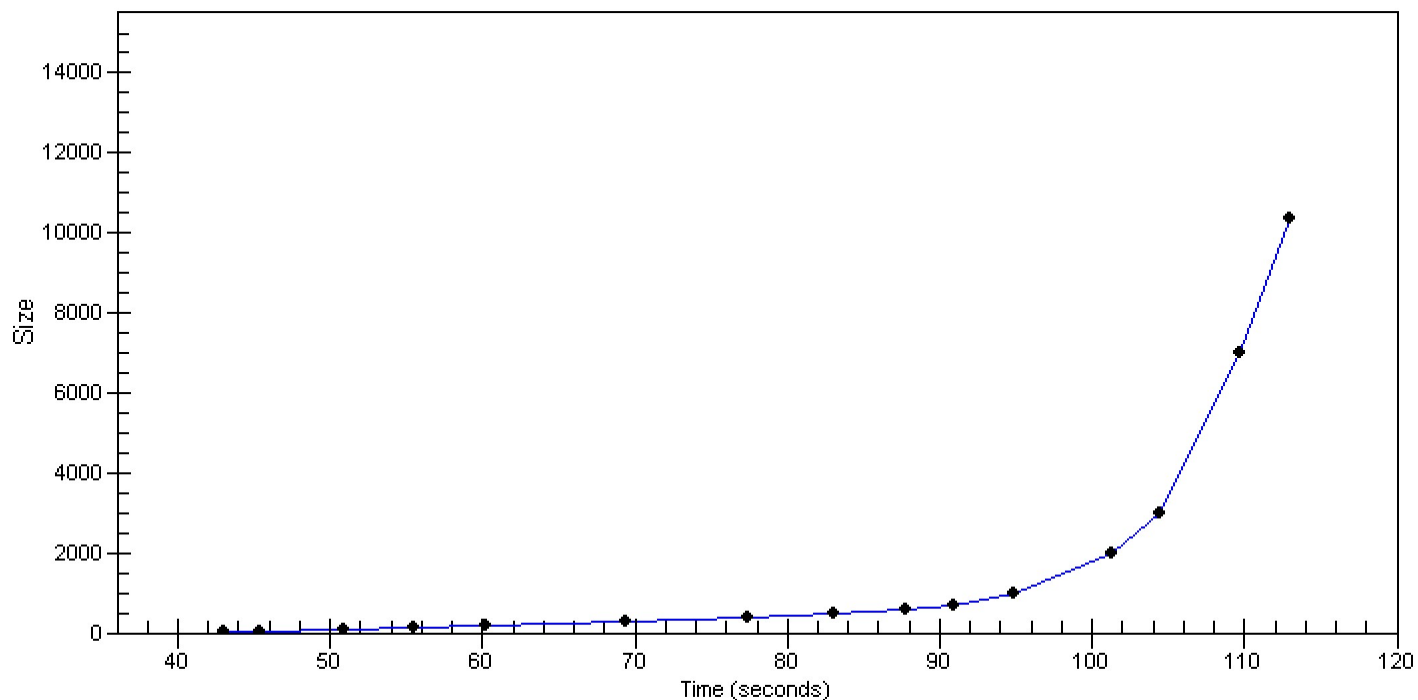


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-13\2015-10-13\_001.xad

Created: 10/13/2015 11:00:48 AM  
Modified: 10/13/2015 11:57:01 AM

**Curves**

**Standard Curve**



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-13\2015-10-13\_001.xad

Created: 10/13/2015 11:00:48 AM  
 Modified: 10/13/2015 11:57:01 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		10/13/2015 11:42:06 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2015-10-13\2015-10-13_001.xad)		Instrument	Run		10/13/2015 11:00:54 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		10/13/2015 11:00:54 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		10/13/2015 11:00:54 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		10/13/2015 11:00:54 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		10/13/2015 11:00:54 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		10/13/2015 11:00:54 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		10/13/2015 11:00:54 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1