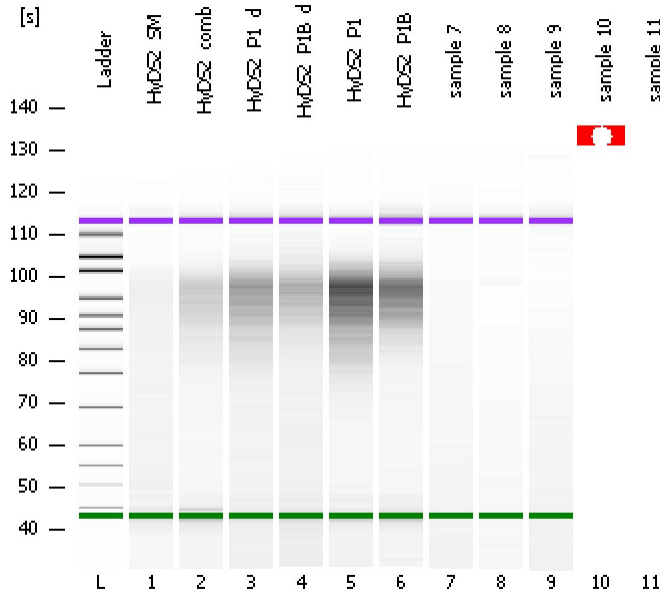


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2017-04-07\2017-04-07_001.xad

Created: 4/7/2017 12:07:40 PM
Modified: 4/7/2017 12:44:11 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

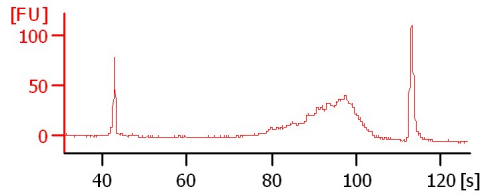
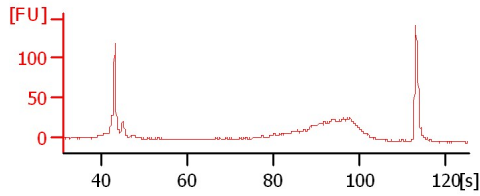
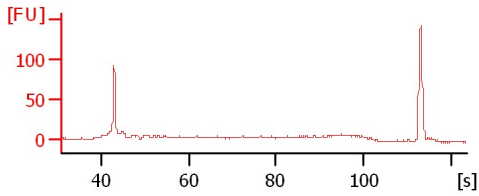
Chip Information:

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

HyDS2_SM

HyDS2_comb

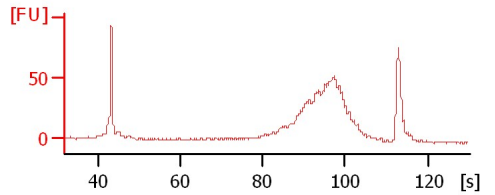
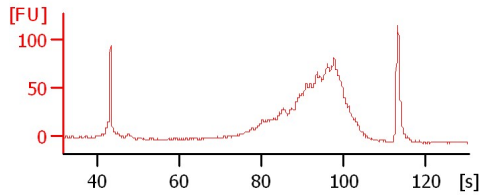
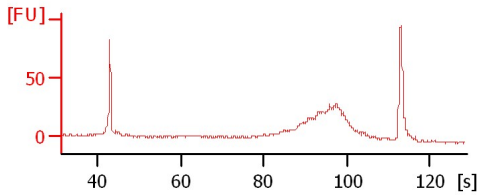
HyDS2_P1_d



HyDS2_P1B_d

HyDS2_P1

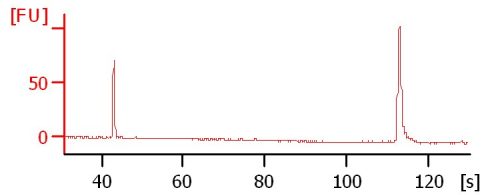
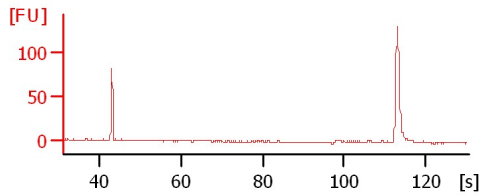
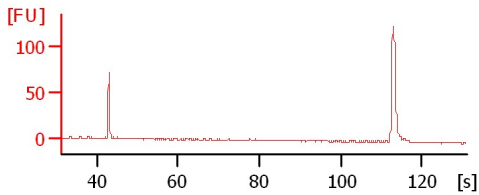
HyDS2_P1B



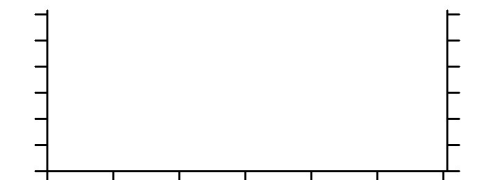
sample 7

sample 8

sample 9



sample 10



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-04-07\2017-04-07_001.xad

Created: 4/7/2017 12:07:40 PM
 Modified: 4/7/2017 12:44:11 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
HyDS2_SM		<input type="checkbox"/>	✓			
HyDS2_comb		<input type="checkbox"/>	✓			
HyDS2_P1_d		<input type="checkbox"/>	✓			
HyDS2_P1B_d		<input type="checkbox"/>	✓			
HyDS2_P1		<input type="checkbox"/>	✓			
HyDS2_P1B		<input type="checkbox"/>	✓			
sample 7		<input type="checkbox"/>	✓			
sample 8		<input type="checkbox"/>	✓			
sample 9		<input type="checkbox"/>	✓			
sample 10		<input type="checkbox"/>	✗			
sample 11		<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\2017-04-07\2017-04-07_001.xad

Created: 4/7/2017 12:07:40 PM
Modified: 4/7/2017 12:44:11 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

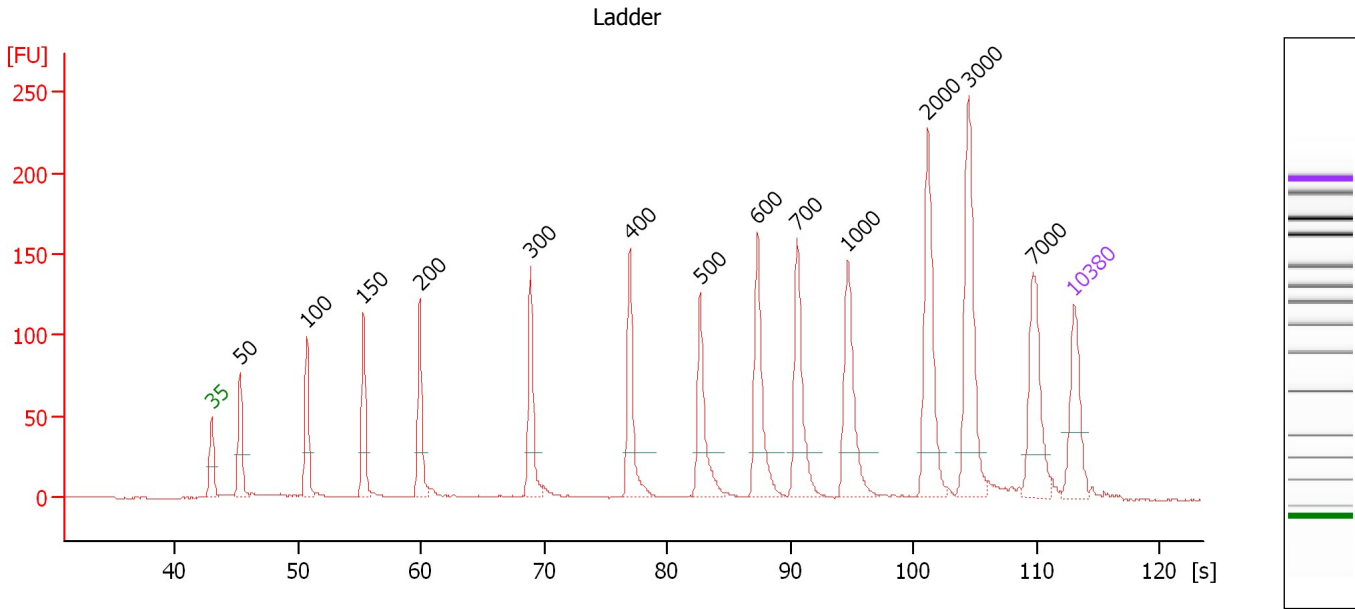
Ladder

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\2017-04-07\2017-04-07_001.xad

Created: 4/7/2017 12:07:40 PM
 Modified: 4/7/2017 12:44:11 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

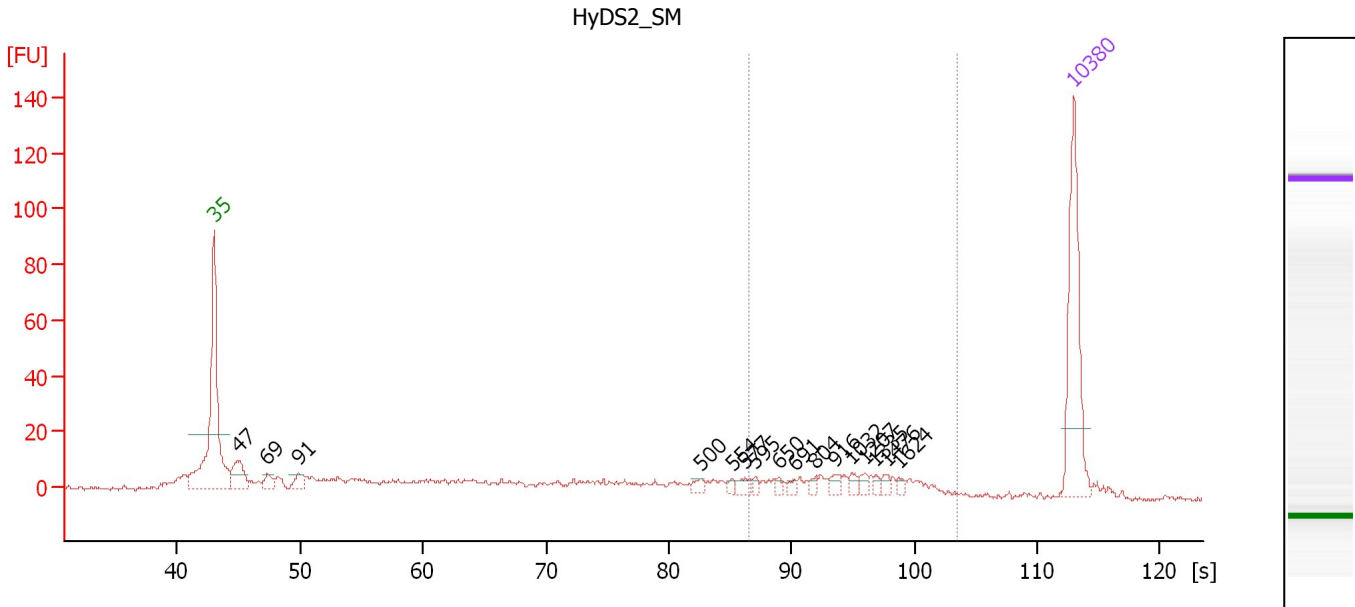
Peak table for Ladder

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	45.31
3	100	150.00	2,272.7	Ladder Peak	50.76
4	150	150.00	1,515.2	Ladder Peak	55.33
5	200	150.00	1,136.4	Ladder Peak	59.91
6	300	150.00	757.6	Ladder Peak	68.89
7	400	150.00	568.2	Ladder Peak	76.95
8	500	150.00	454.5	Ladder Peak	82.66
9	600	150.00	378.8	Ladder Peak	87.33
10	700	150.00	324.7	Ladder Peak	90.55
11	1,000	150.00	227.3	Ladder Peak	94.65
12	2,000	150.00	113.6	Ladder Peak	101.14
13	3,000	150.00	75.8	Ladder Peak	104.46
14	7,000	150.00	32.5	Ladder Peak	109.69
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-04-07\2017-04-07_001.xad

Created: 4/7/2017 12:07:40 PM
 Modified: 4/7/2017 12:44:11 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : HyDS2_SM

Number of peaks found: 16 Corr. Area 1: 105.6
 Noise: 0.9

Peak table for sample 1 : HyDS2_SM

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	47	33.05	1,054.5		44.92
3	69	11.13	246.1		47.33
4	91	13.63	226.0		49.82
5	500	5.85	17.7		82.66
6	554	3.41	9.3		85.19
7	577	6.12	16.1		86.24
8	595	3.01	7.7		87.07
9	650	2.82	6.6		88.95
10	691	3.15	6.9		90.26
11	804	3.56	6.7		91.97
12	916	5.89	9.8		93.50
13	1,032	4.35	6.4		94.86
14	1,207	4.75	6.0		95.99
15	1,335	2.81	3.2		96.82
16	1,476	3.64	3.7		97.74
17	1,624	3.13	2.9		98.70
18	10,380	75.00	10.9	Upper Marker	113.00

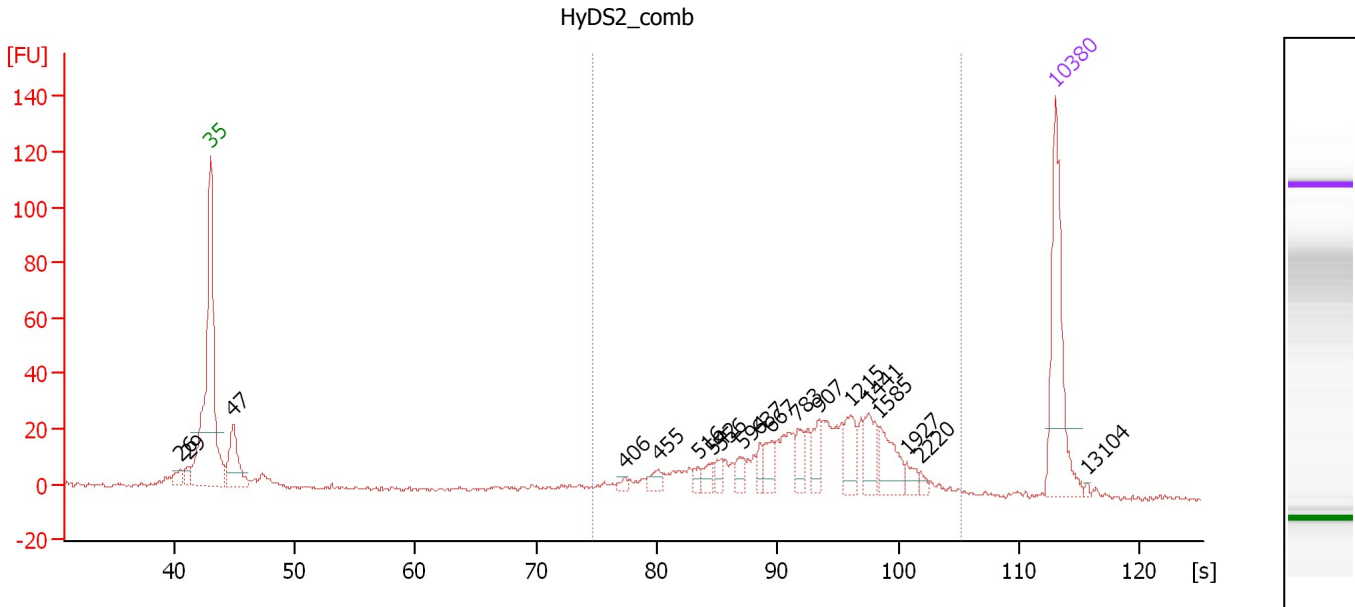
Region table for sample 1 : HyDS2_SM

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
584	2,685	1,156	105.6	121.3	76.55	25	42.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-04-07\2017-04-07_001.xad

Created: 4/7/2017 12:07:40 PM
 Modified: 4/7/2017 12:44:11 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : HyDS2_comb

Number of peaks found: 19 Corr. Area 1: 462.6
 Noise: 0.8

Peak table for sample 2 : HyDS2_comb

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	26	0.00	0.0		40.46
2	29	0.00	0.0		41.18
3	35	125.00	5,411.3	Lower Marker	43.00
4	47	56.87	1,828.0		44.87
5	406	4.05	15.1		77.31
6	455	8.81	29.3		80.11
7	516	6.42	18.9		83.41
8	542	9.05	25.3		84.61
9	556	6.77	18.5		85.28
10	594	9.03	23.0		87.06
11	637	8.37	19.9		88.52
12	667	14.93	33.9		89.50
13	783	14.22	27.5		91.68
14	907	14.46	24.2		93.38
15	1,215	22.07	27.5		96.05
16	1,441	21.41	22.5		97.51
17	1,585	26.04	24.9		98.45
18	1,927	6.85	5.4		100.67
19	2,220	3.26	2.2		101.87
20	10,380	75.00	10.9	Upper Marker	113.00
21	13,104	0.00	0.0		115.67

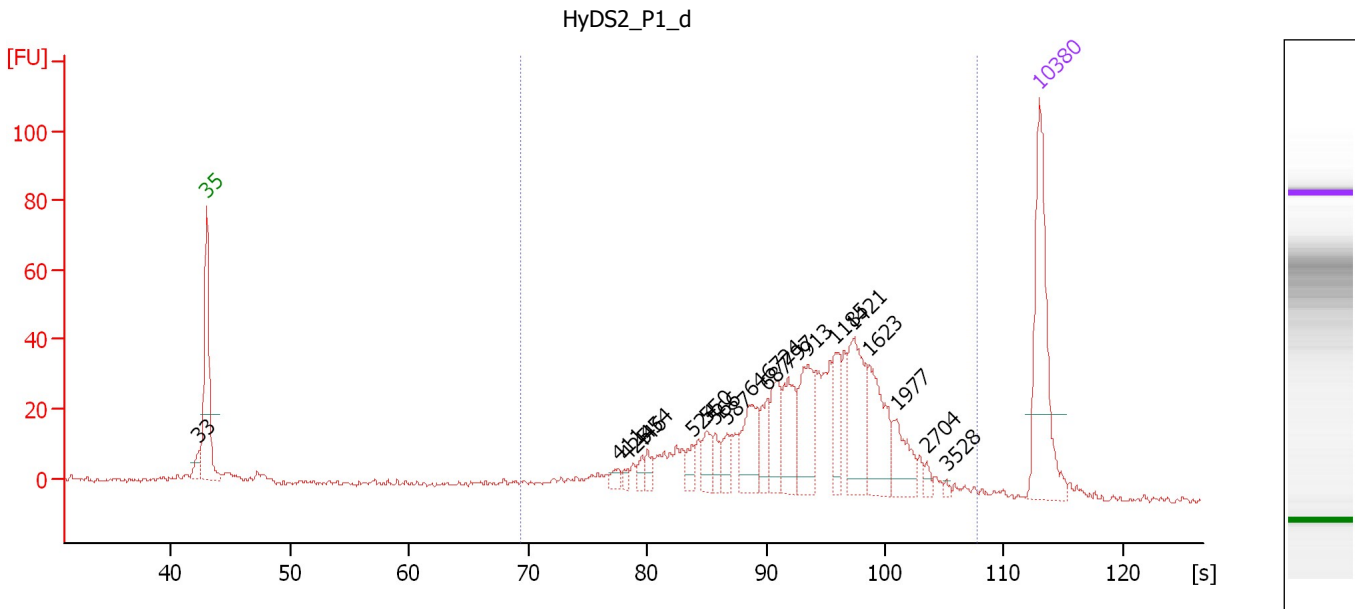
Region table for sample 2 : HyDS2_comb

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
371	3,559	1,033	462.6	653.1	333.48	73	51.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-04-07\2017-04-07_001.xad

Created: 4/7/2017 12:07:40 PM
 Modified: 4/7/2017 12:44:11 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : HyDS2_P1_d

Number of peaks found: 20 Corr. Area 1: 688.5
 Noise: 0.8

Peak table for sample 3 : HyDS2_P1_d

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	33	0.00	0.0		42.37
2	35	125.00	5,411.3	Lower Marker	43.00
3	411	6.39	23.6		77.57
4	425	4.07	14.5		78.38
5	446	6.18	21.0		79.56
6	454	7.79	26.0		80.05
7	524	10.46	30.2		83.80
8	550	14.87	41.0		84.97
9	566	8.95	24.0		85.74
10	587	12.77	32.9		86.73
11	646	36.71	86.1		88.81
12	687	19.57	43.2		90.12
13	724	28.27	59.1		90.89
14	797	37.48	71.3		91.88
15	913	40.56	67.3		93.46
16	1,185	24.84	31.8		95.85
17	1,421	49.15	52.4		97.38
18	1,623	42.76	39.9		98.69
19	1,977	22.77	17.4		100.99
20	2,704	4.14	2.3		103.48
21	3,528	1.54	0.7		105.15
22	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2017-04-07\2017-04-07_001.xad

Created: 4/7/2017 12:07:40 PM
Modified: 4/7/2017 12:44:11 PM

Electropherogram Summary Continued ...

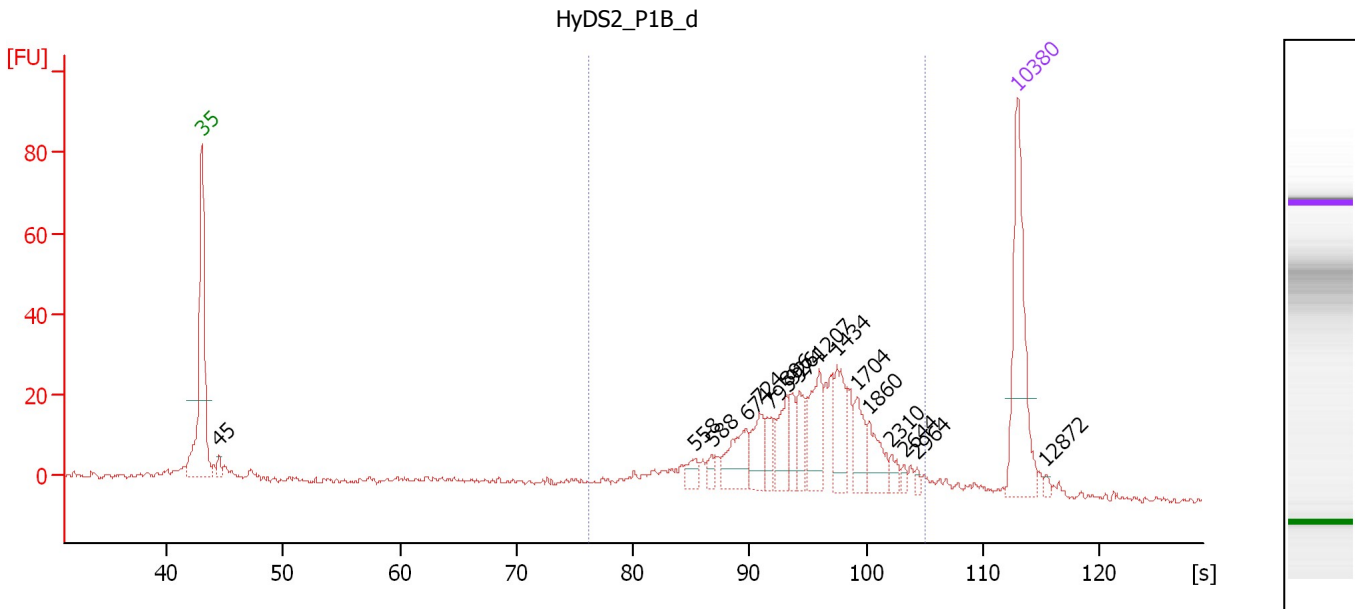
... Region table for sample 3 : HyDS2_P1_d

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
306	5,574	1,116	688.5	1,019.0	524.83	92	60.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-04-07\2017-04-07_001.xad

Created: 4/7/2017 12:07:40 PM
 Modified: 4/7/2017 12:44:11 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : HyDS2_P1B_d

Number of peaks found: 17 Corr. Area 1: 375.9
 Noise: 0.8

Peak table for sample 4 : HyDS2_P1B_d

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	45	7.87	267.5		44.47
3	558	10.41	28.3		85.35
4	588	6.13	15.8		86.78
5	674	33.92	76.2		89.73
6	724	24.78	51.9		90.88
7	795	12.72	24.2		91.85
8	896	24.48	41.4		93.23
9	926	14.27	23.3		93.65
10	974	17.17	26.7		94.29
11	1,207	33.74	42.3		96.00
12	1,434	28.46	30.1		97.47
13	1,704	19.30	17.2		99.22
14	1,860	20.18	16.4		100.24
15	2,310	6.09	4.0		102.17
16	2,644	3.07	1.8		103.28
17	2,964	2.57	1.3		104.34
18	10,380	75.00	10.9	Upper Marker	113.00
19	12,872	0.00	0.0		115.44

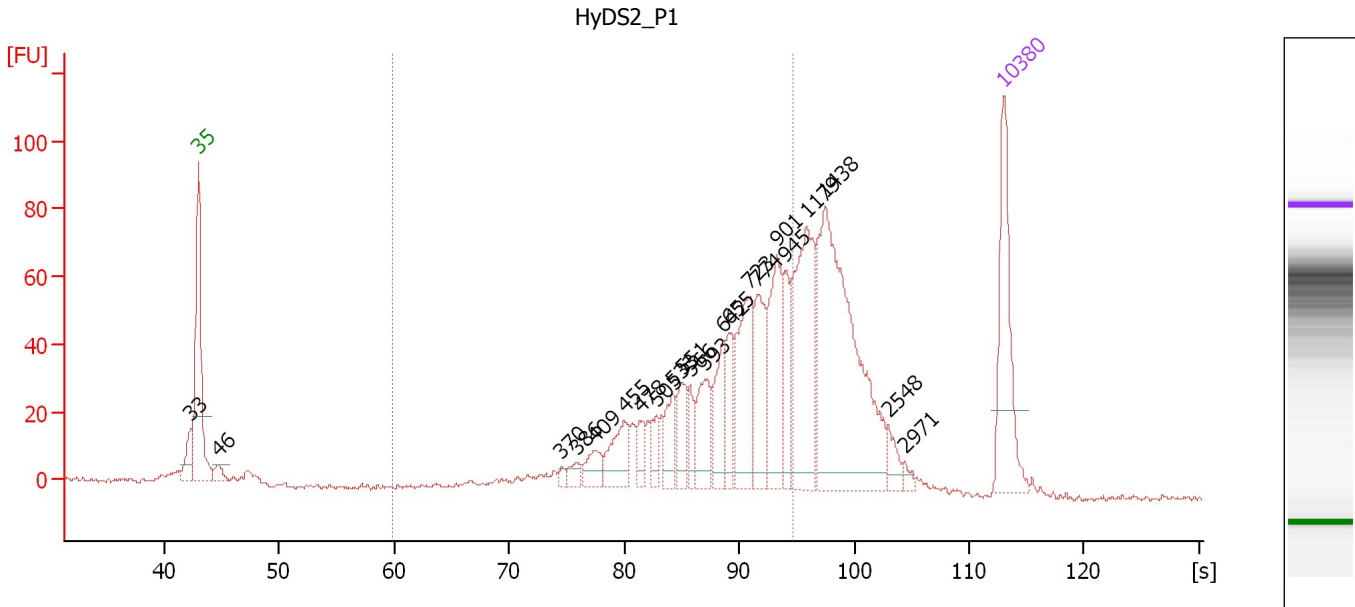
Region table for sample 4 : HyDS2_P1B_d

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
390	3,505	1,200	375.9	573.2	347.20	88	48.4

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-04-07\2017-04-07_001.xad

Created: 4/7/2017 12:07:40 PM
 Modified: 4/7/2017 12:44:11 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : HyDS2_P1

Number of peaks found: 22 Corr. Area 1: 737.6
 Noise: 0.6

Peak table for sample 5 : HyDS2_P1

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	33	0.00	0.0		42.35
2	35	125.00	5,411.3	Lower Marker	43.00
3	46	12.66	417.8		44.68
4	370	4.65	19.0		74.57
5	386	9.18	36.0		75.83
6	409	20.51	76.0		77.46
7	455	39.79	132.6		80.08
8	478	17.76	56.3		81.39
9	505	15.09	45.3		82.88
10	533	26.56	75.5		84.19
11	551	32.35	89.0		85.03
12	566	17.48	46.8		85.73
13	593	42.03	107.4		86.99
14	642	43.24	102.1		88.67
15	655	31.41	72.7		89.09
16	723	88.13	184.7		90.87
17	774	59.21	115.9		91.57
18	901	79.53	133.8		93.29
19	945	33.04	53.0		93.90
20	1,179	121.77	156.4		95.82
21	1,438	236.90	249.6		97.50
22	2,548	12.94	7.7		102.96
23	2,971	4.95	2.5		104.36
24	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2017-04-07\2017-04-07_001.xad

Created: 4/7/2017 12:07:40 PM
Modified: 4/7/2017 12:44:11 PM

Electropherogram Summary Continued ...

... Region table for sample 5 :

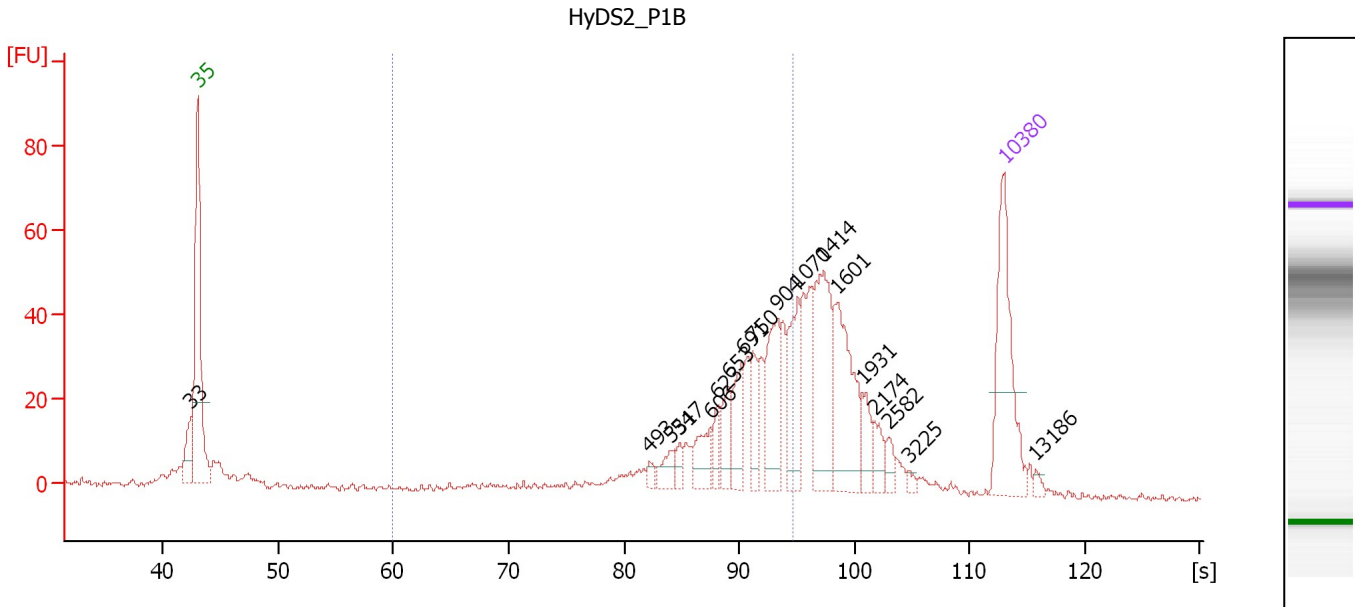
HyDS2_P1

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	666	737.6	1,629.3	644.38	56	26.4

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-04-07\2017-04-07_001.xad

Created: 4/7/2017 12:07:40 PM
 Modified: 4/7/2017 12:44:11 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : HyDS2_P1B

Number of peaks found: 18 Corr. Area 1: 336.6
 Noise: 0.7

Peak table for sample 6 : HyDS2_P1B

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	33	0.00	0.0		42.39
2	35	125.00	5,411.3	Lower Marker	43.00
3	493	6.06	18.6		82.24
4	531	14.29	40.8		84.11
5	547	8.59	23.8		84.85
6	606	23.43	58.6		87.51
7	623	13.54	32.9		88.07
8	653	22.95	53.2		89.05
9	691	32.00	70.2		90.26
10	750	23.37	47.2		91.24
11	904	55.69	93.4		93.33
12	1,070	48.35	68.5		95.10
13	1,414	76.37	81.8		97.34
14	1,601	74.52	70.5		98.55
15	1,931	15.95	12.5		100.70
16	2,174	12.41	8.6		101.72
17	2,582	7.29	4.3		103.07
18	3,225	3.05	1.4		104.75
19	10,380	75.00	10.9	Upper Marker	113.00
20	13,186	0.00	0.0		115.75

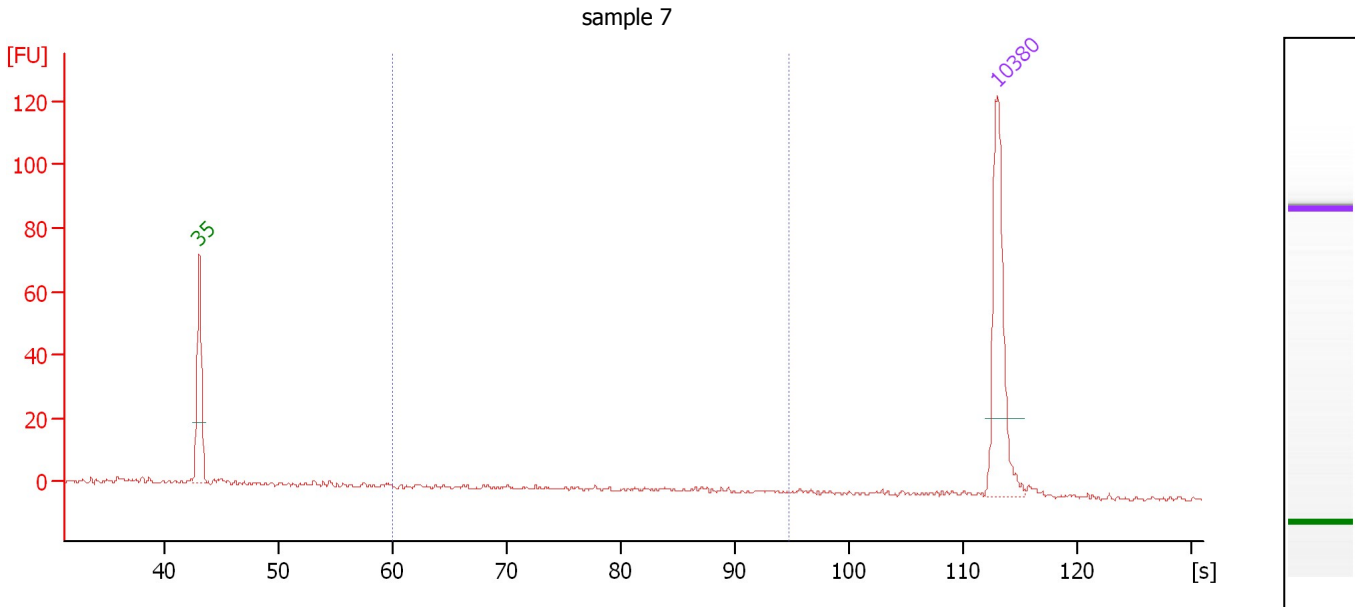
Region table for sample 6 : HyDS2_P1B

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	718	336.6	781.0	338.60	45	22.9

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-04-07\2017-04-07_001.xad

Created: 4/7/2017 12:07:40 PM
 Modified: 4/7/2017 12:44:11 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : sample 7

Number of peaks found: 0 Corr. Area 1: 20.5
 Noise: 0.5

Peak table for sample 7 : sample 7

Pea k	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	10,380	75.00	10.9	Upper Marker	113.00

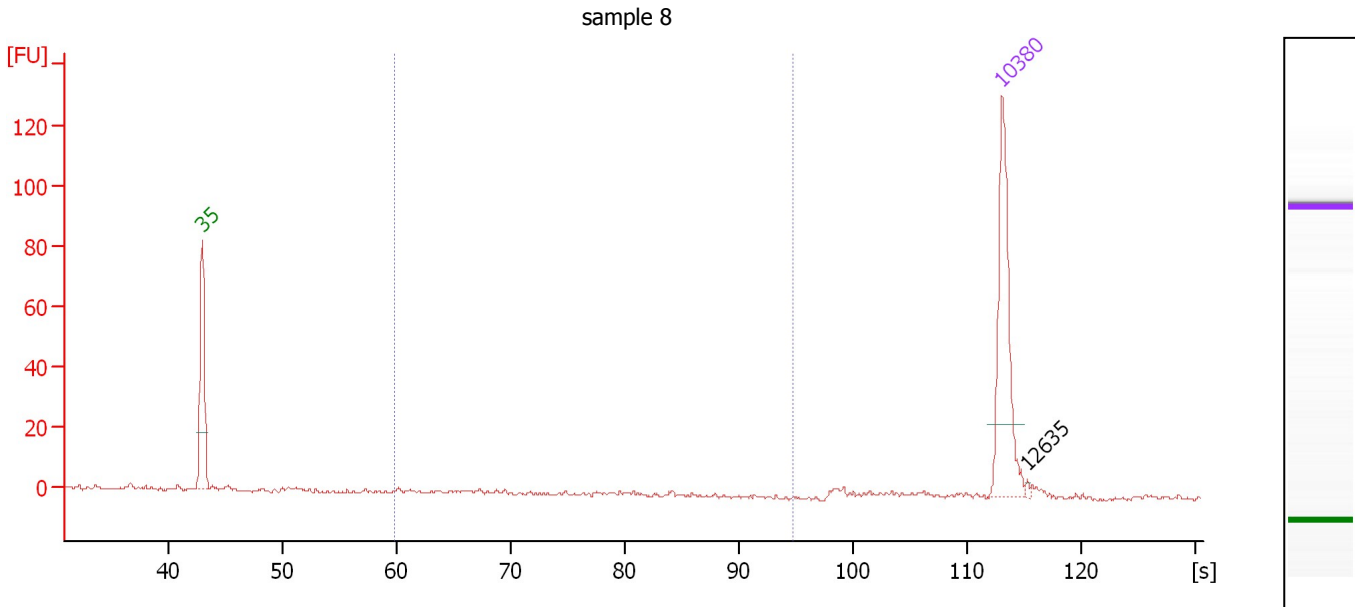
Region table for sample 7 : sample 7

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	462	20.5	75.5	18.34	27	40.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-04-07\2017-04-07_001.xad

Created: 4/7/2017 12:07:40 PM
 Modified: 4/7/2017 12:44:11 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : sample 8

Number of peaks found: 1 Corr. Area 1: 6.1
 Noise: 0.5

Peak table for sample 8 : sample 8

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	10,380	75.00	10.9	Upper Marker	113.00
3	12,635	0.00	0.0		115.21

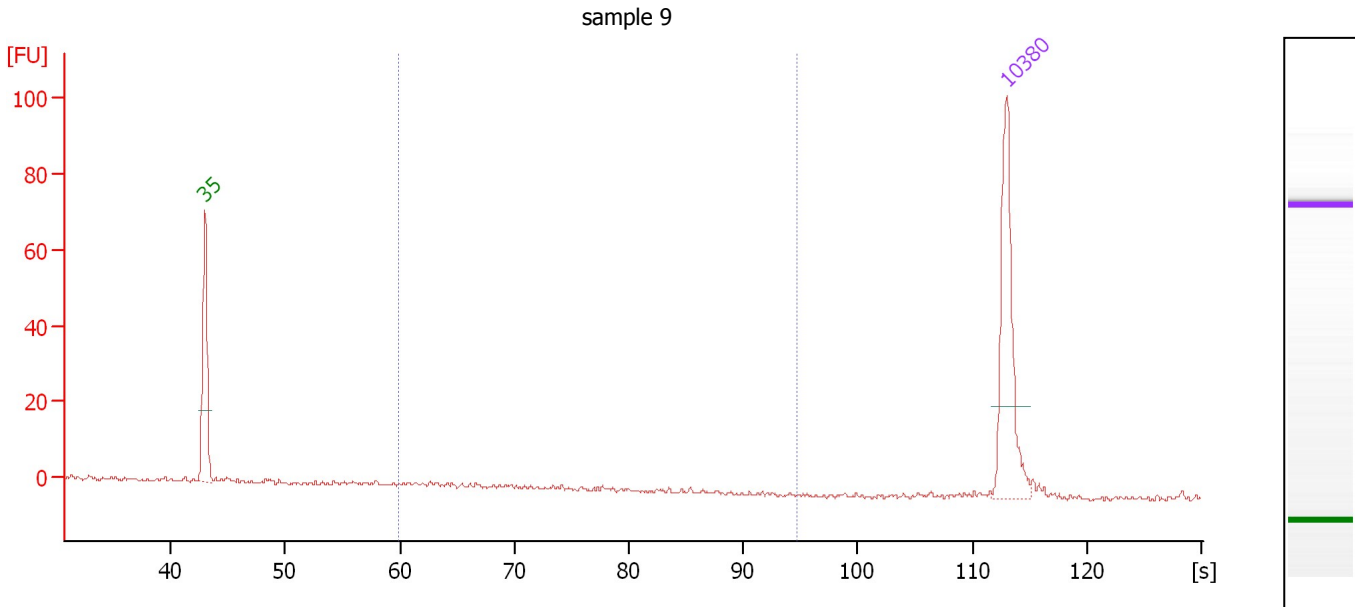
Region table for sample 8 : sample 8

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	353	6.1	27.5	5.58	14	31.9

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-04-07\2017-04-07_001.xad

Created: 4/7/2017 12:07:40 PM
 Modified: 4/7/2017 12:44:11 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : sample 9

Number of peaks found: 0 Corr. Area 1: 0.5
 Noise: 0.6

Peak table for sample 9 : sample 9

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	10,380	75.00	10.9	Upper Marker	113.00

Region table for sample 9 : sample 9

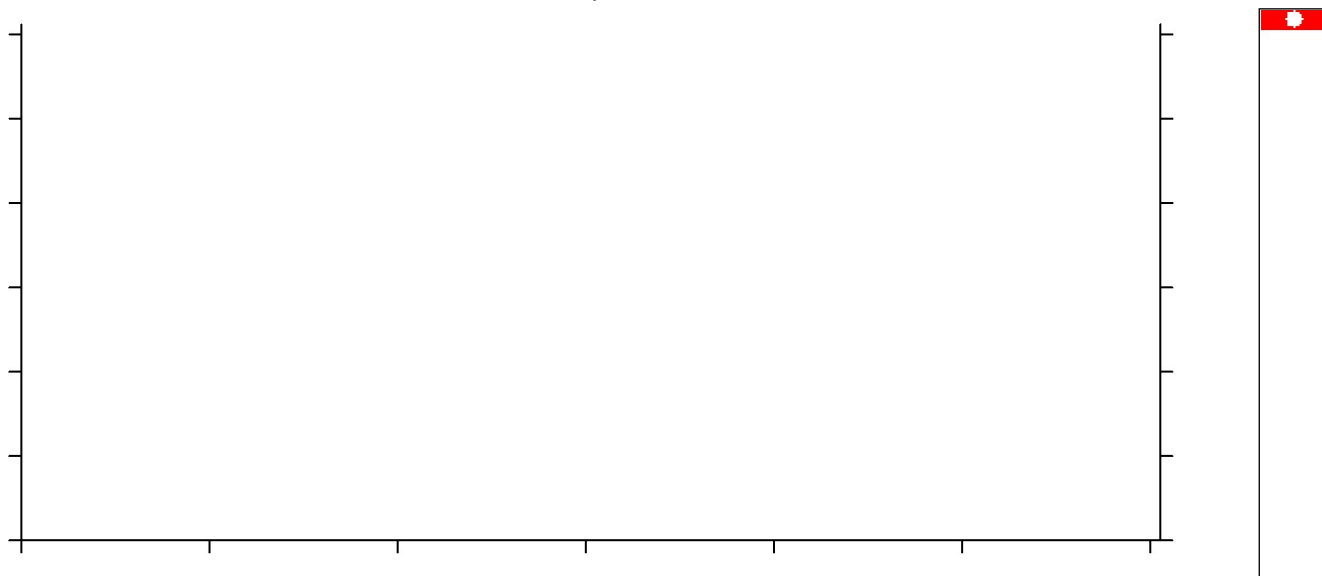
From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	282	0.5	3.5	0.62	8	20.2

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2017-04-07\2017-04-07_001.xad

Created: 4/7/2017 12:07:40 PM
Modified: 4/7/2017 12:44:11 PM

Electropherogram Summary Continued ...

sample 10



Setpoint Deviations for sample 10 : sample 10

End Analysis Time Range [s] : 31.6

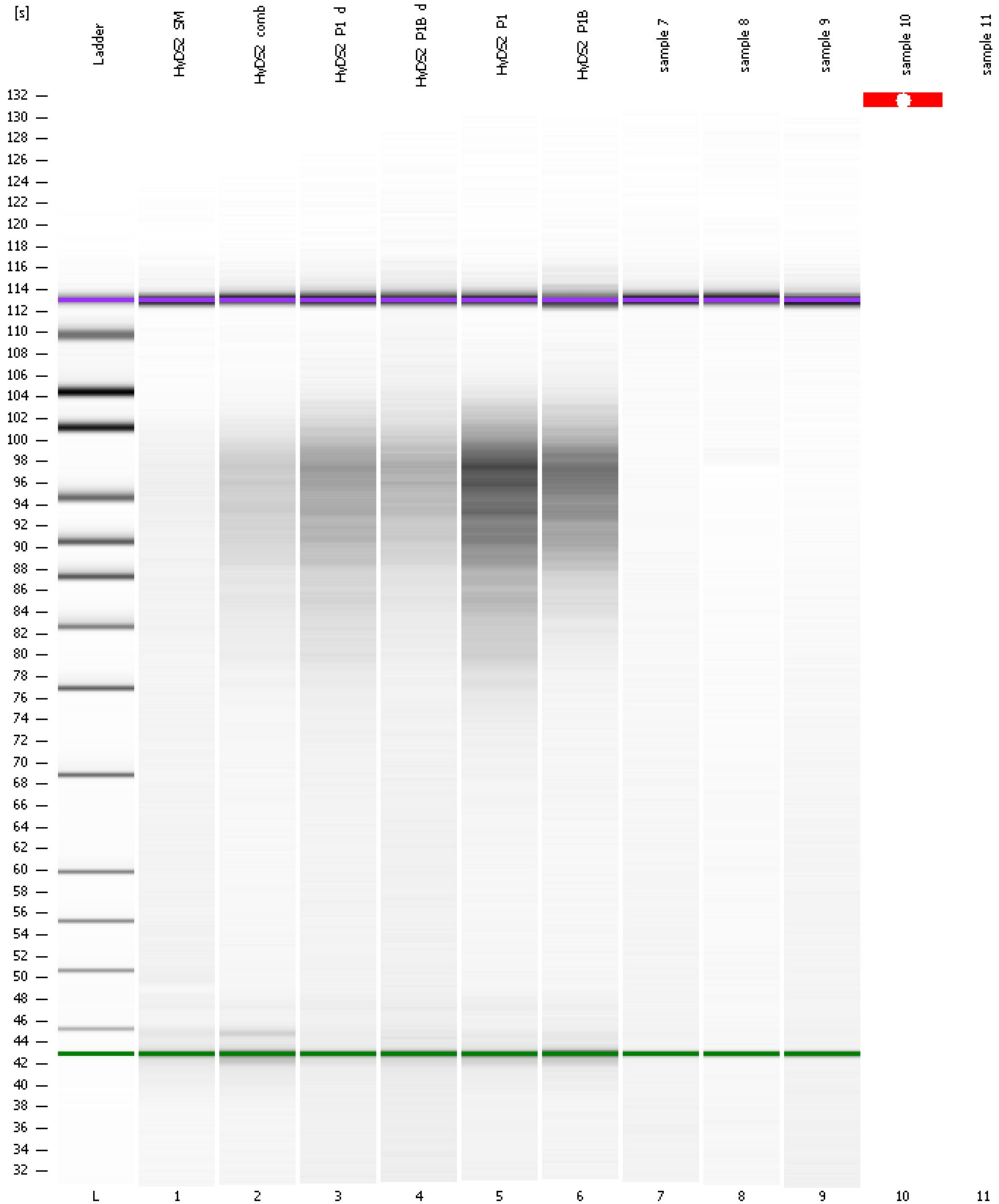
Overall Results for sample 10 : sample 10

Noise: 0.6

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2017-04-07\2017-04-07_001.xad

Created: 4/7/2017 12:07:40 PM
Modified: 4/7/2017 12:44:11 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2017-04-07\2017-04-07_001.xad

Created: 4/7/2017 12:07:40 PM
Modified: 4/7/2017 12:44:11 PM

Invalid Samples

Sample 11 has not been run, no results available.

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-04-07\2017-04-07_001.xad

Created: 4/7/2017 12:07:40 PM
 Modified: 4/7/2017 12:44:11 PM

Run Logbook

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run aborted on port 1		Instrument	Run		4/7/2017 12:44:10 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\2017-04-07\2017-04-07_001.xad)		Instrument	Run		4/7/2017 12:07:46 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		4/7/2017 12:07:46 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		4/7/2017 12:07:46 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		4/7/2017 12:07:46 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		4/7/2017 12:07:46 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		4/7/2017 12:07:46 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		4/7/2017 12:07:46 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1