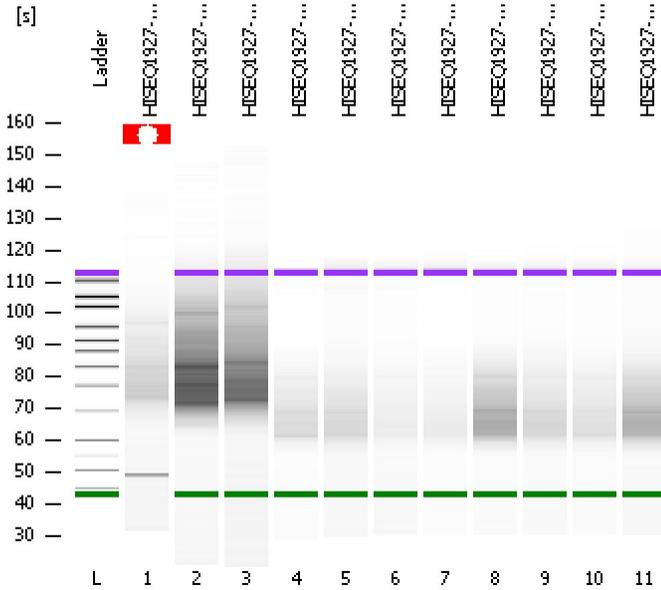


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-11\2019-10-11_003.xad

Created: 10/11/2019 1:25:28 PM
Modified: 10/11/2019 2:46:16 PM

Electrophoresis File Run Summary



Instrument Information:

Instrument Name: DE34903152 Firmware: C.01.069
Serial#: DE34903152 Type: G2938C

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

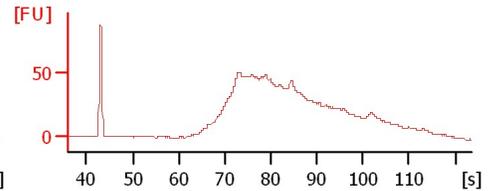
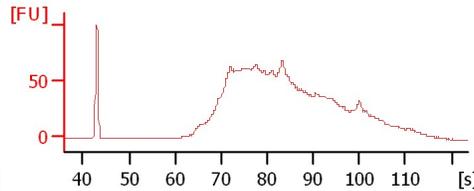
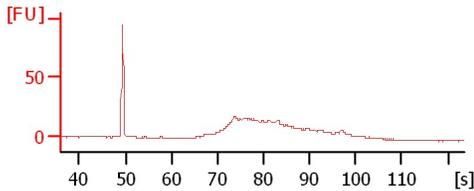
Chip Information:

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

HISEQ1927-2(12)

HISEQ1927-25(13)

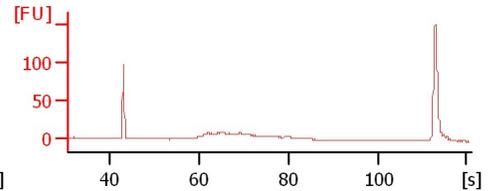
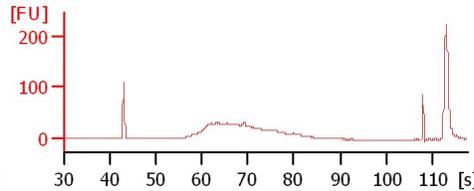
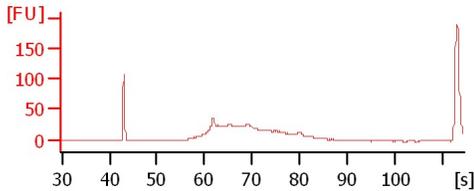
HISEQ1927-16(14)



HISEQ1927-13(15)

HISEQ1927-14(16)

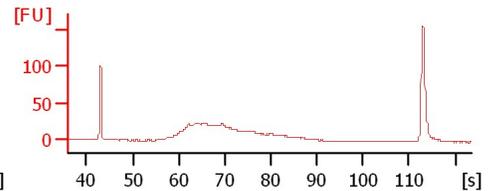
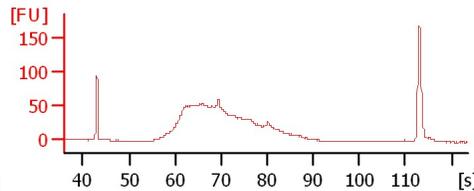
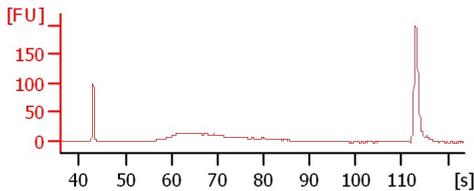
HISEQ1927-9(17)



HISEQ1927-8(18)

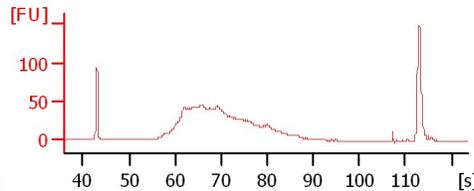
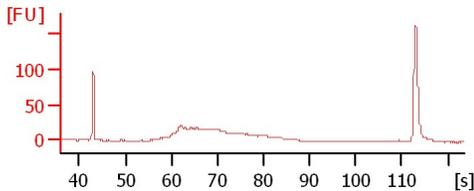
HISEQ1927-22(19)

HISEQ1927-23(20)



HISEQ1927-5(21)

HISEQ1927-18(22)



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-11\2019-10-11_003.xad

Created: 10/11/2019 1:25:28 PM
 Modified: 10/11/2019 2:46:16 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
HISEQ1927-2(12)		<input type="checkbox"/>	✓			
HISEQ1927-25(13)		<input type="checkbox"/>	✓			
HISEQ1927-16(14)		<input type="checkbox"/>	✓			
HISEQ1927-13(15)		<input type="checkbox"/>	✓			
HISEQ1927-14(16)		<input type="checkbox"/>	✓			
HISEQ1927-9(17)		<input type="checkbox"/>	✓			
HISEQ1927-8(18)		<input type="checkbox"/>	✓			
HISEQ1927-22(19)		<input type="checkbox"/>	✓			
HISEQ1927-23(20)		<input type="checkbox"/>	✓			
HISEQ1927-5(21)		<input type="checkbox"/>	✓			
HISEQ1927-18(22)		<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\2019-10-11\2019-10-11_003.xad

Created: 10/11/2019 1:25:28 PM
Modified: 10/11/2019 2:46:16 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

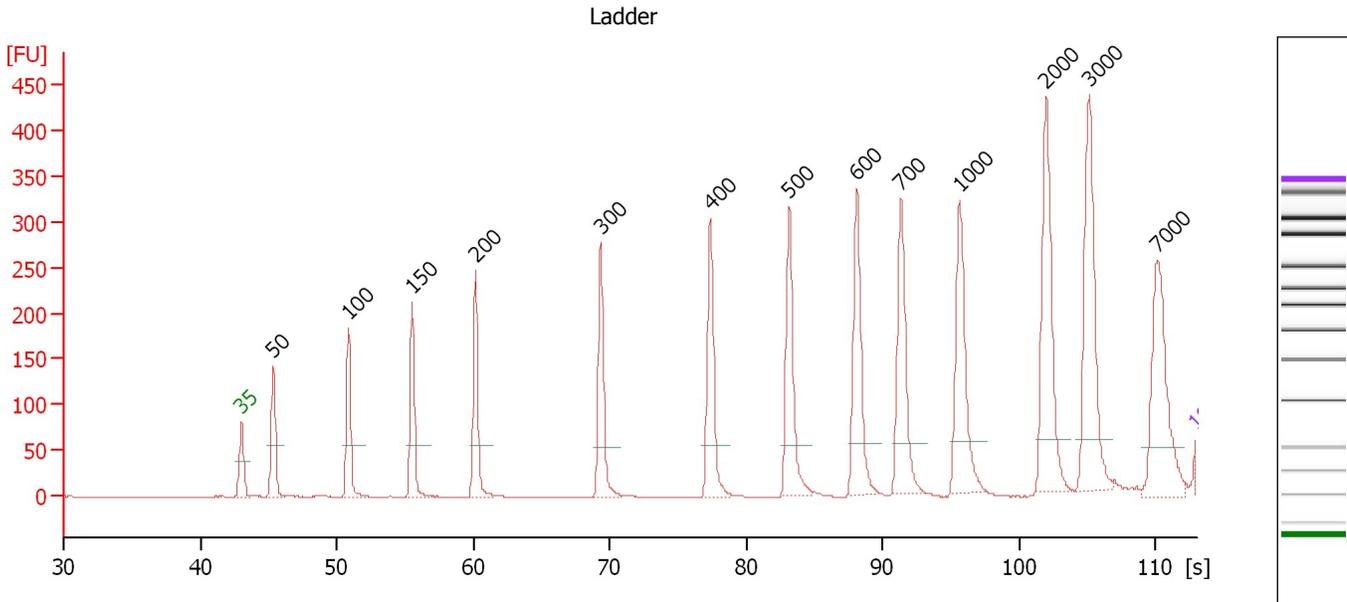
Ladder

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\2019-10-11\2019-10-11_003.xad

Created: 10/11/2019 1:25:28 PM
 Modified: 10/11/2019 2:46:16 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.3

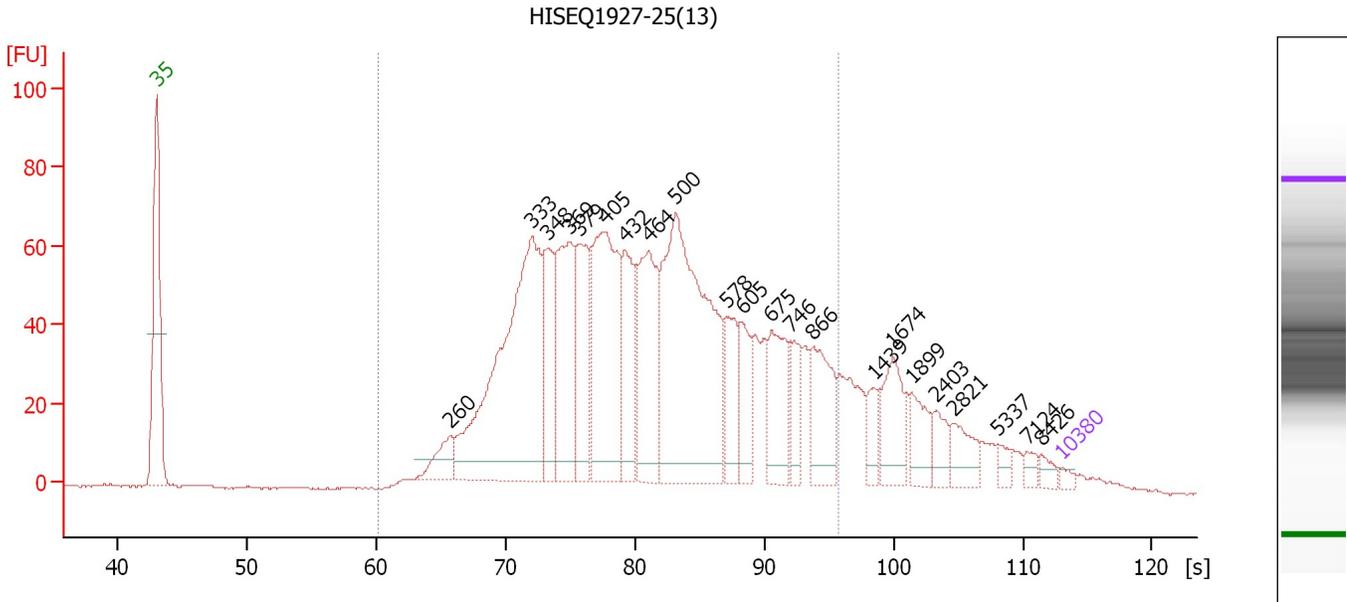
Peak table for Ladder

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	50.84
4	150	150.00	1,515.2	Ladder Peak	55.54
5	200	150.00	1,136.4	Ladder Peak	60.17
6	300	150.00	757.6	Ladder Peak	69.34
7	400	150.00	568.2	Ladder Peak	77.37
8	500	150.00	454.5	Ladder Peak	83.17
9	600	150.00	378.8	Ladder Peak	88.11
10	700	150.00	324.7	Ladder Peak	91.37
11	1,000	150.00	227.3	Ladder Peak	95.68
12	2,000	150.00	113.6	Ladder Peak	102.03
13	3,000	150.00	75.8	Ladder Peak	105.16
14	7,000	150.00	32.5	Ladder Peak	110.22
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-11\2019-10-11_003.xad

Created: 10/11/2019 1:25:28 PM
 Modified: 10/11/2019 2:46:16 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : HISEQ1927-25(13)

Number of peaks found: 22 Corr. Area 1: 1,466.5
 Noise: 0.3

Peak table for sample 2 : HISEQ1927-25(13)

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	577.93	3,363.9		65.70
3	333	6,841.61	31,102.5		72.01
4	348	1,605.11	6,986.1		73.20
5	369	2,549.41	10,471.6		74.87
6	379	1,926.94	7,698.2		75.71
7	405	3,646.15	13,635.2		77.67
8	432	1,634.99	5,736.2		79.22
9	464	2,260.94	7,387.6		81.07
10	500	6,576.80	19,943.7		83.15
11	578	973.02	2,550.6		87.03
12	605	842.13	2,108.8		88.28
13	675	1,377.61	3,093.9		90.54
14	746	668.92	1,358.1		92.03
15	866	1,301.33	2,275.6		93.76
16	1,439	388.21	408.7		98.46
17	1,674	929.70	841.7		99.95
18	1,899	521.26	415.9		101.38
19	2,403	377.21	237.8		103.29
20	2,821	468.08	251.4		104.60
21	5,337	172.95	49.1		108.11
22	7,124	151.96	32.3		110.32
23	8,426	133.30	24.0		111.39
24	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-11\2019-10-11_003.xad

Created: 10/11/2019 1:25:28 PM
Modified: 10/11/2019 2:46:16 PM

Electropherogram Summary Continued ...

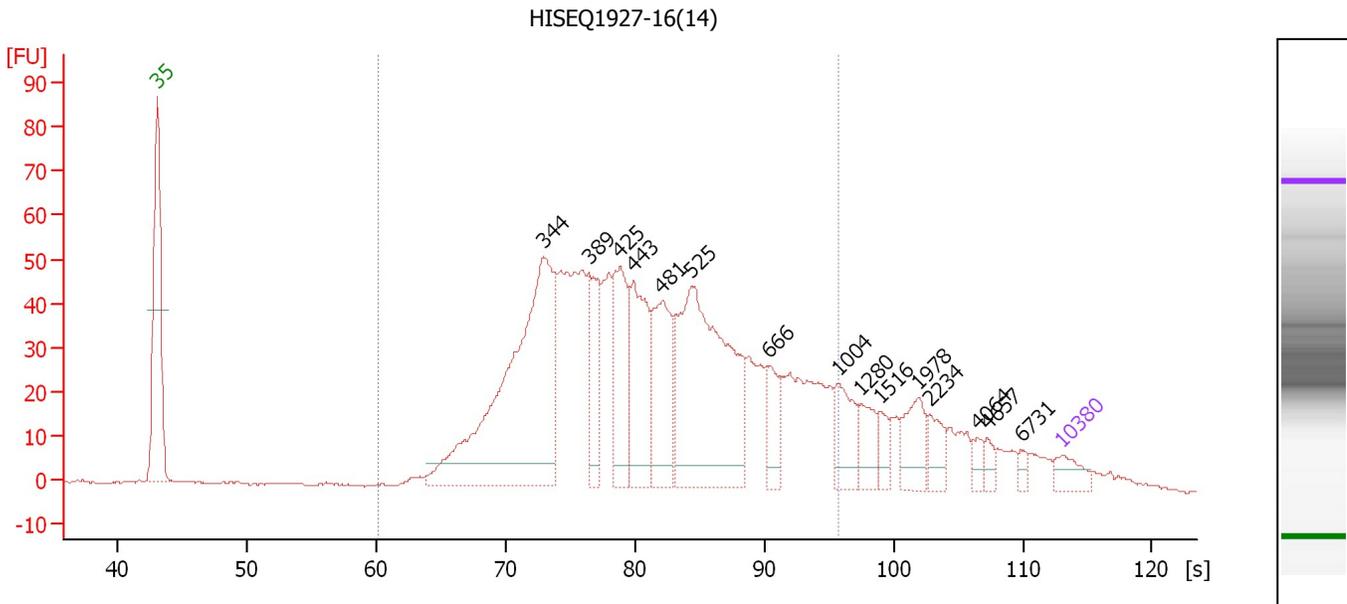
... Region table for sample 2 : HISEQ1927-25(13)

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/ μ l]	Corr. Area	Molarity [pmol/l]	Co lor % of Total	Size distribution in CV [%]
200	1,000	484	35,908.76	1,466.5	128,552.4	 84	33.8

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-11\2019-10-11_003.xad

Created: 10/11/2019 1:25:28 PM
 Modified: 10/11/2019 2:46:16 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : HISEQ1927-16(14)

Number of peaks found: 15 Corr. Area 1: 1,056.2
 Noise: 0.2

Peak table for sample 3 : HISEQ1927-16(14)

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	344	1,818.58	7,999.1		72.91
3	389	308.79	1,203.5		76.47
4	425	409.59	1,459.0		78.84
5	443	519.01	1,776.8		79.84
6	481	492.15	1,549.2		82.09
7	525	1,290.93	3,726.7		84.40
8	666	170.66	388.1		90.27
9	1,004	207.49	313.1		95.70
10	1,280	128.96	152.7		97.45
11	1,516	69.52	69.5		98.95
12	1,978	159.95	122.5		101.88
13	2,234	100.19	68.0		102.76
14	4,064	39.94	14.9		106.51
15	4,657	42.73	13.9		107.26
16	6,731	30.42	6.8		109.88
17	10,380	75.00	10.9	Upper Marker	113.00

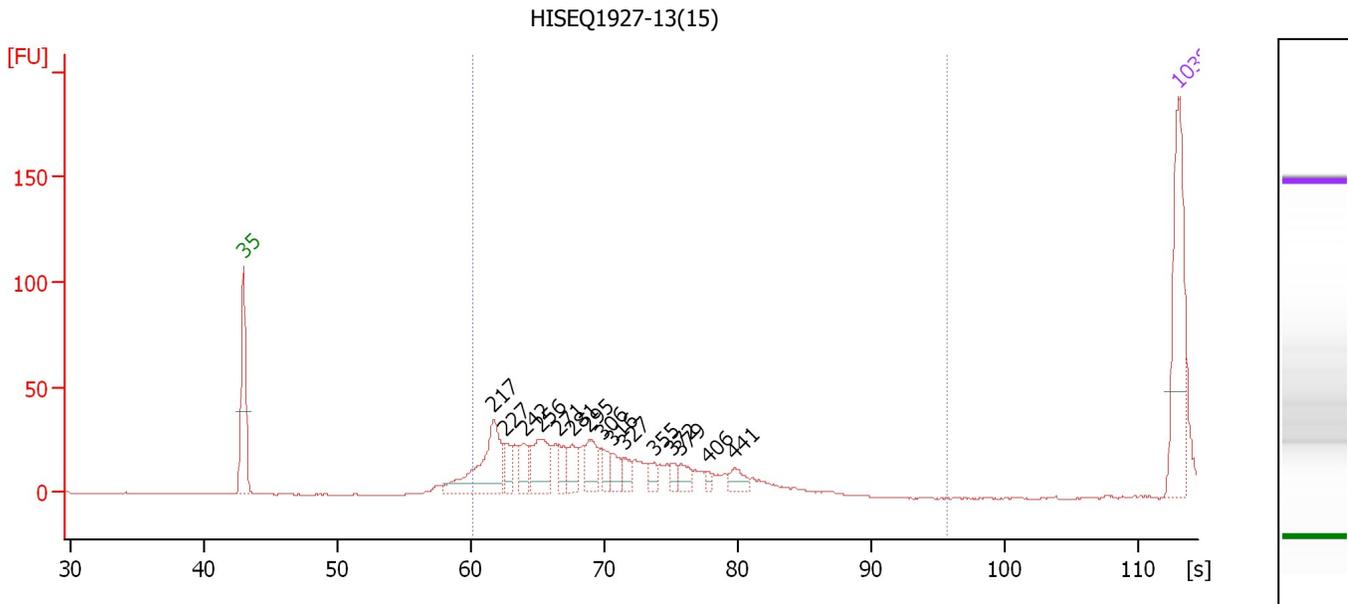
Region table for sample 3 : HISEQ1927-16(14)

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
200	1,000	483	7,470.55	1,056.2	26,679.2	81	33.5

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-11\2019-10-11_003.xad

Created: 10/11/2019 1:25:28 PM
 Modified: 10/11/2019 2:46:16 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : HISEQ1927-13(15)

Number of peaks found: 15 Corr. Area 1: 188.3
 Noise: 0.2

Peak table for sample 4 : HISEQ1927-13(15)

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	217	93.81	654.8		61.73
3	227	19.75	132.0		62.61
4	242	22.36	140.0		64.01
5	256	49.99	296.0		65.29
6	271	16.56	92.7		66.65
7	281	24.68	133.0		67.61
8	295	28.85	148.3		68.85
9	306	15.40	76.1		69.86
10	316	16.34	78.2		70.66
11	327	10.84	50.2		71.54
12	355	9.92	42.3		73.78
13	372	7.80	31.8		75.10
14	379	12.61	50.4		75.70
15	406	4.23	15.8		77.74
16	441	12.75	43.8		79.74
17	10,380	75.00	10.9	Upper Marker	113.00

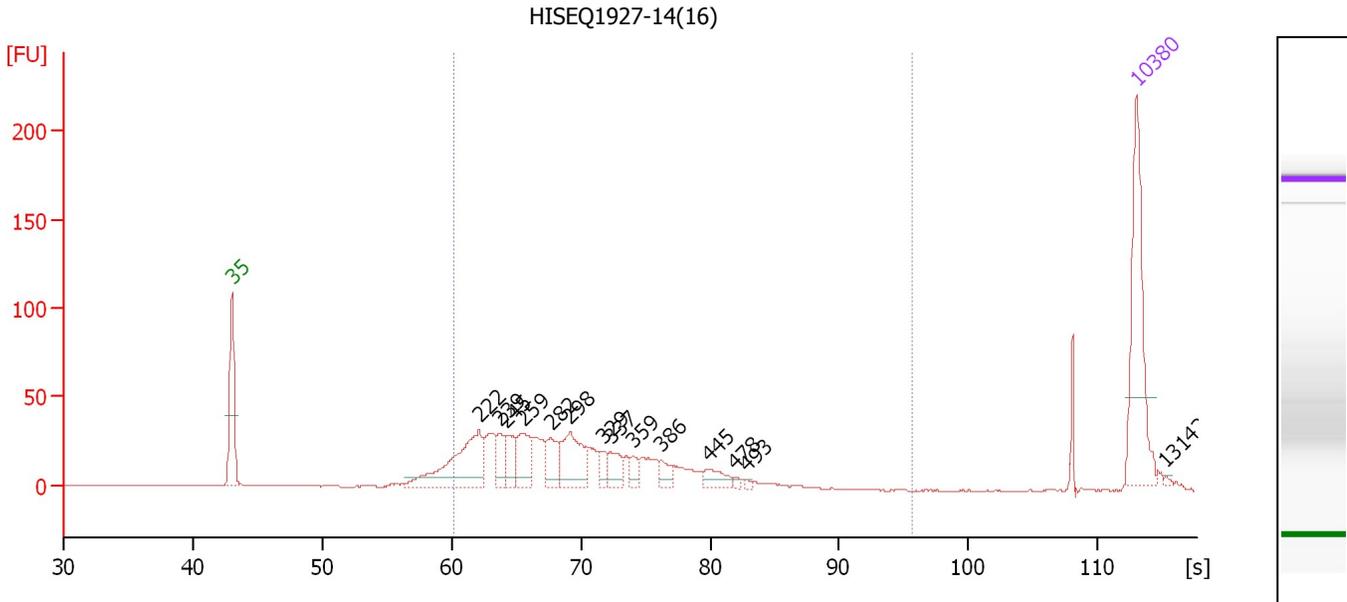
Region table for sample 4 : HISEQ1927-13(15)

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
200	1,000	257	151.20	188.3	898.0	94	12.8

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-11\2019-10-11_003.xad

Created: 10/11/2019 1:25:28 PM
 Modified: 10/11/2019 2:46:16 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : HISEQ1927-14(16)

Number of peaks found: 14 Corr. Area 1: 694.6
 Noise: 0.3

Peak table for sample 5 : HISEQ1927-14(16)

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	222	97.94	669.8		62.14
3	239	22.83	144.9		63.71
4	245	24.34	150.8		64.25
5	259	37.43	219.4		65.53
6	282	25.83	138.8		67.68
7	298	53.07	269.7		69.17
8	329	10.85	49.9		71.69
9	337	18.05	81.2		72.31
10	359	9.18	38.8		74.05
11	386	10.91	42.8		76.24
12	445	14.82	50.5		79.96
13	478	2.69	8.5		81.91
14	493	2.39	7.3		82.78
15	10,380	75.00	10.9	Upper Marker	113.00
16	13,142	0.00	0.0		115.27

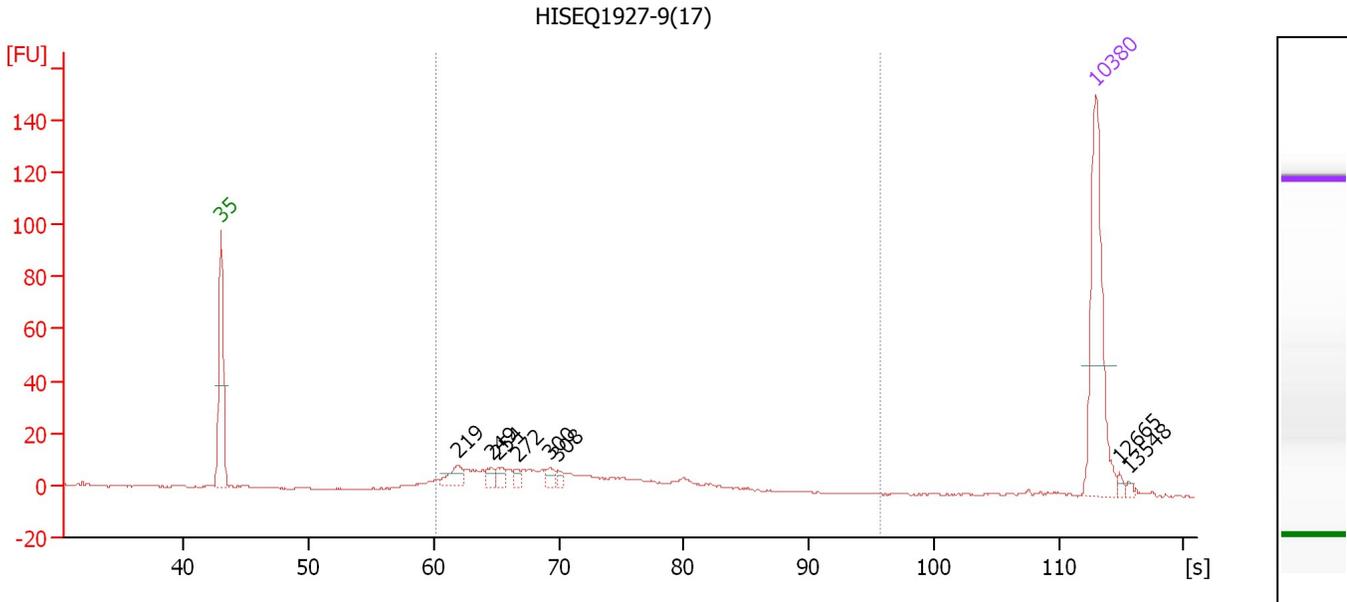
Region table for sample 5 : HISEQ1927-14(16)

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	307	427.26	694.6	2,272.0	88	25.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-11\2019-10-11_003.xad

Created: 10/11/2019 1:25:28 PM
 Modified: 10/11/2019 2:46:16 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : HISEQ1927-9(17)

Number of peaks found: 8 Corr. Area 1: 200.4
 Noise: 0.3

Peak table for sample 6 : HISEQ1927-9(17)

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	219	15.76	109.1		61.90
3	249	7.19	43.8		64.64
4	254	7.31	43.6		65.15
5	272	5.13	28.6		66.73
6	300	7.15	36.1		69.34
7	308	4.34	21.3		69.98
8	10,380	75.00	10.9	Upper Marker	113.00
9	12,665	0.00	0.0		114.88
10	13,548	0.00	0.0		115.61

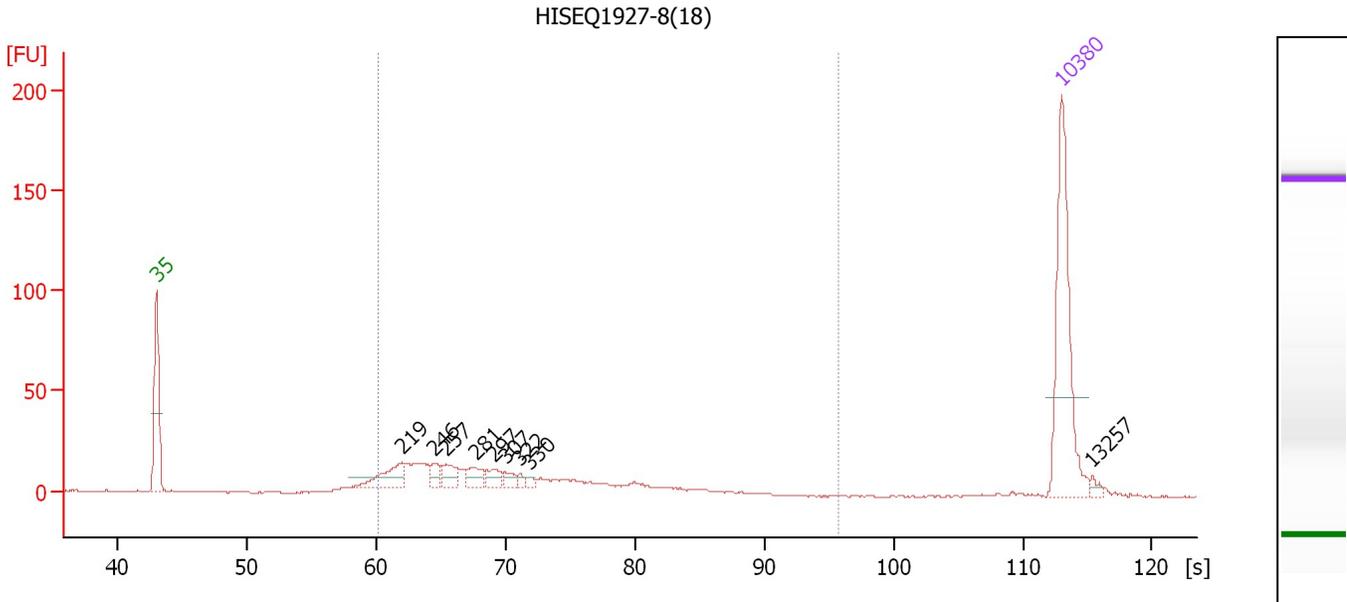
Region table for sample 6 : HISEQ1927-9(17)

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	323	157.93	200.4	813.5	88	28.3

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-11\2019-10-11_003.xad

Created: 10/11/2019 1:25:28 PM
 Modified: 10/11/2019 2:46:16 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : HISEQ1927-8(18)

Number of peaks found: 9 Corr. Area 1: 316.0
 Noise: 0.3

Peak table for sample 7 : HISEQ1927-8(18)

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	219	27.06	186.8		61.95
3	246	8.44	52.0		64.40
4	257	14.23	83.8		65.41
5	281	12.88	69.4		67.61
6	297	9.69	49.4		69.10
7	307	6.04	29.8		69.93
8	322	3.07	14.4		71.11
9	330	3.41	15.7		71.77
10	10,380	75.00	10.9	Upper Marker	113.00
11	13,257	0.00	0.0		115.37

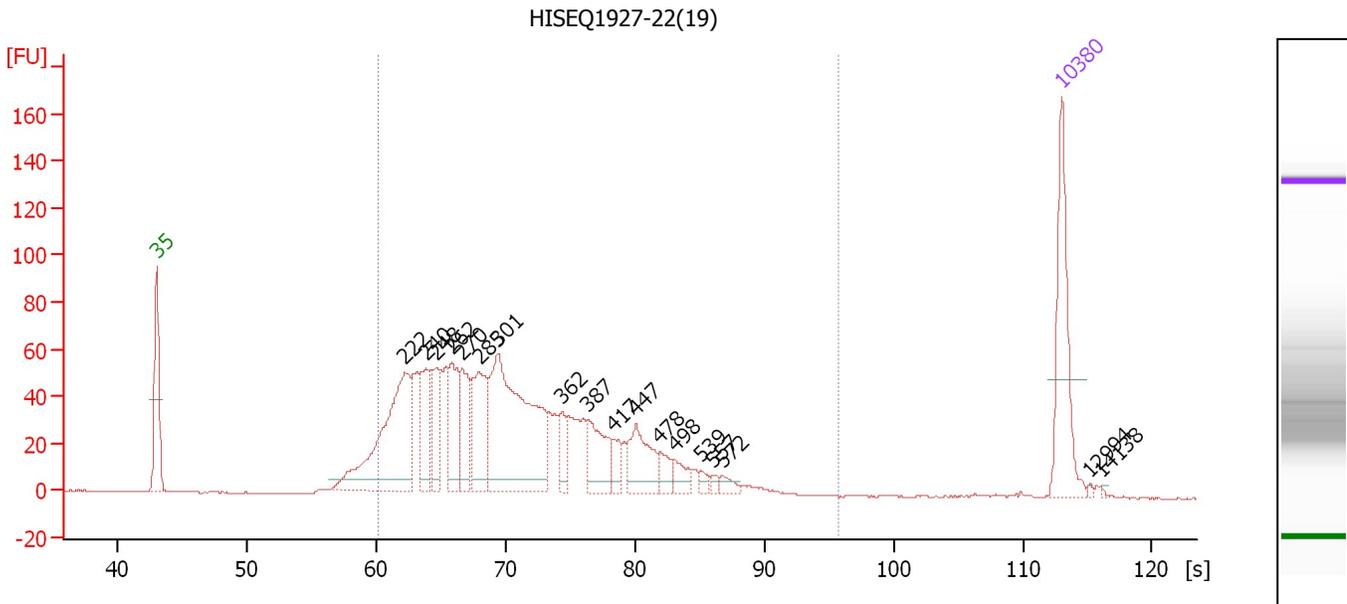
Region table for sample 7 : HISEQ1927-8(18)

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	312	189.33	316.0	1,008.9	88	28.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-11\2019-10-11_003.xad

Created: 10/11/2019 1:25:28 PM
 Modified: 10/11/2019 2:46:16 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : HISEQ1927-22(19)

Number of peaks found: 18 Corr. Area 1: 1,354.4
 Noise: 0.2

Peak table for sample 8 : HISEQ1927-22(19)

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	222	202.07	1,378.5		62.19
3	240	63.19	398.6		63.85
4	248	52.68	321.2		64.61
5	262	61.72	357.3		65.83
6	270	54.31	304.2		66.63
7	285	82.78	440.6		67.93
8	301	245.94	1,238.3		69.41
9	362	22.46	93.9		74.35
10	387	50.19	196.3		76.36
11	417	16.61	60.4		78.34
12	447	51.80	175.7		80.09
13	478	16.01	50.7		81.92
14	498	17.03	51.8		83.04
15	539	6.04	17.0		85.11
16	557	4.34	11.8		86.00
17	572	7.73	20.5		86.72
18	10,380	75.00	10.9	Upper Marker	113.00
19	12,994	0.00	0.0		115.15
20	14,138	0.00	0.0		116.09

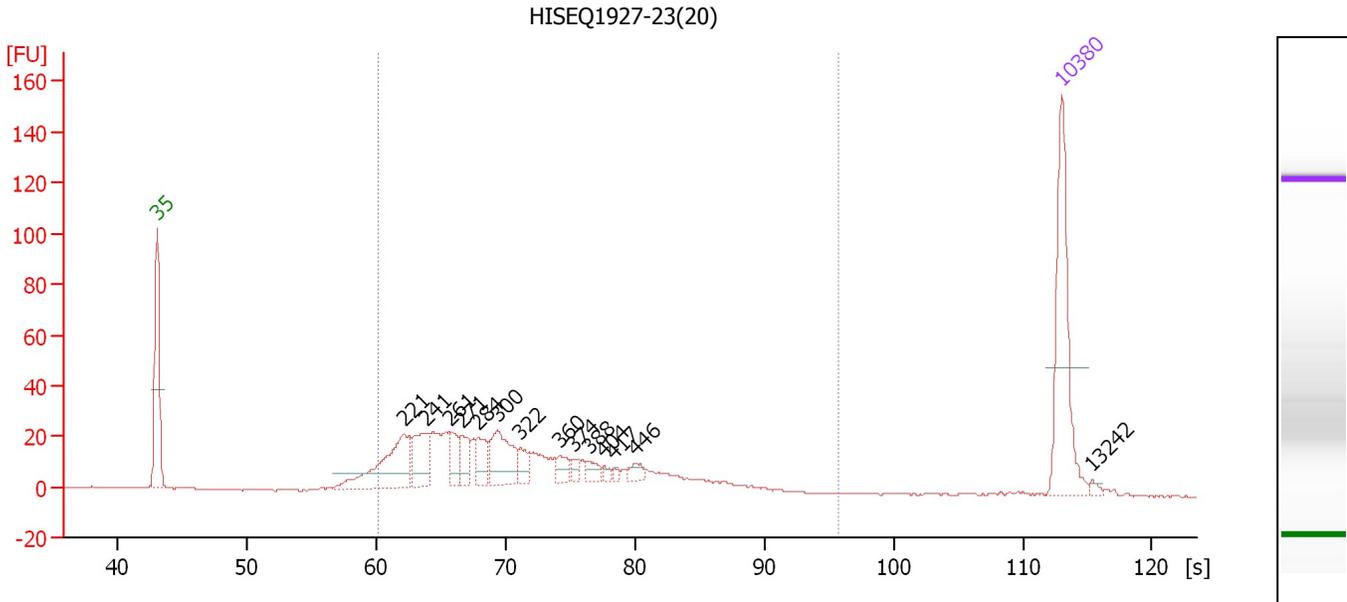
Region table for sample 8 : HISEQ1927-22(19)

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	328	1,125.45	1,354.4	5,745.7	94	29.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-11\2019-10-11_003.xad

Created: 10/11/2019 1:25:28 PM
 Modified: 10/11/2019 2:46:16 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : HISEQ1927-23(20)

Number of peaks found: 14 Corr. Area 1: 566.3
 Noise: 0.2

Peak table for sample 9 : HISEQ1927-23(20)

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	221	79.07	541.4		62.12
3	241	38.32	241.3		63.89
4	261	18.57	107.9		65.74
5	271	21.48	120.2		66.65
6	284	21.70	115.8		67.87
7	300	47.40	239.5		69.32
8	322	13.07	61.6		71.09
9	360	11.84	49.9		74.13
10	374	5.45	22.1		75.30
11	388	8.47	33.1		76.39
12	404	3.44	12.9		77.61
13	417	2.62	9.5		78.39
14	446	7.34	24.9		80.06
15	10,380	75.00	10.9	Upper Marker	113.00
16	13,242	0.00	0.0		115.36

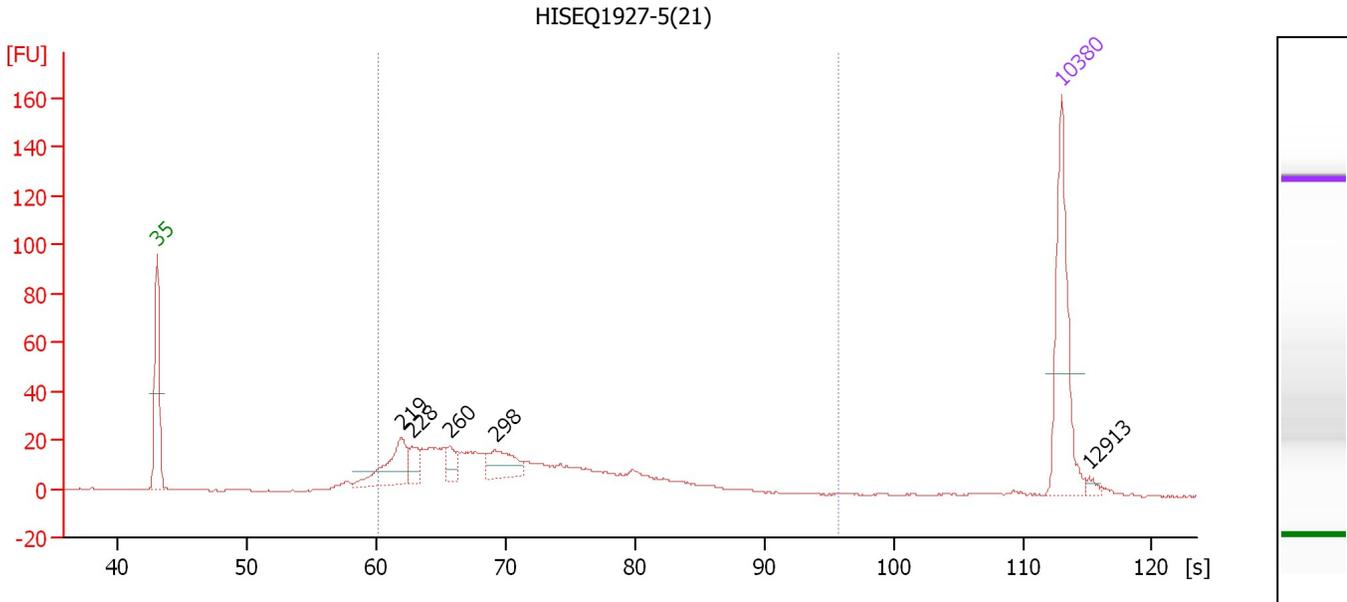
Region table for sample 9 : HISEQ1927-23(20)

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	334	462.64	566.3	2,355.8	91	32.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-11\2019-10-11_003.xad

Created: 10/11/2019 1:25:28 PM
 Modified: 10/11/2019 2:46:16 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : HISEQ1927-5(21)

Number of peaks found: 5 Corr. Area 1: 456.6
 Noise: 0.2

Peak table for sample 10 : HISEQ1927-5(21)

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	219	53.69	371.5		61.91
3	228	18.98	126.2		62.72
4	260	14.03	81.7		65.67
5	298	31.89	162.1		69.16
6	10,380	75.00	10.9	Upper Marker	113.00
7	12,913	0.00	0.0		115.09

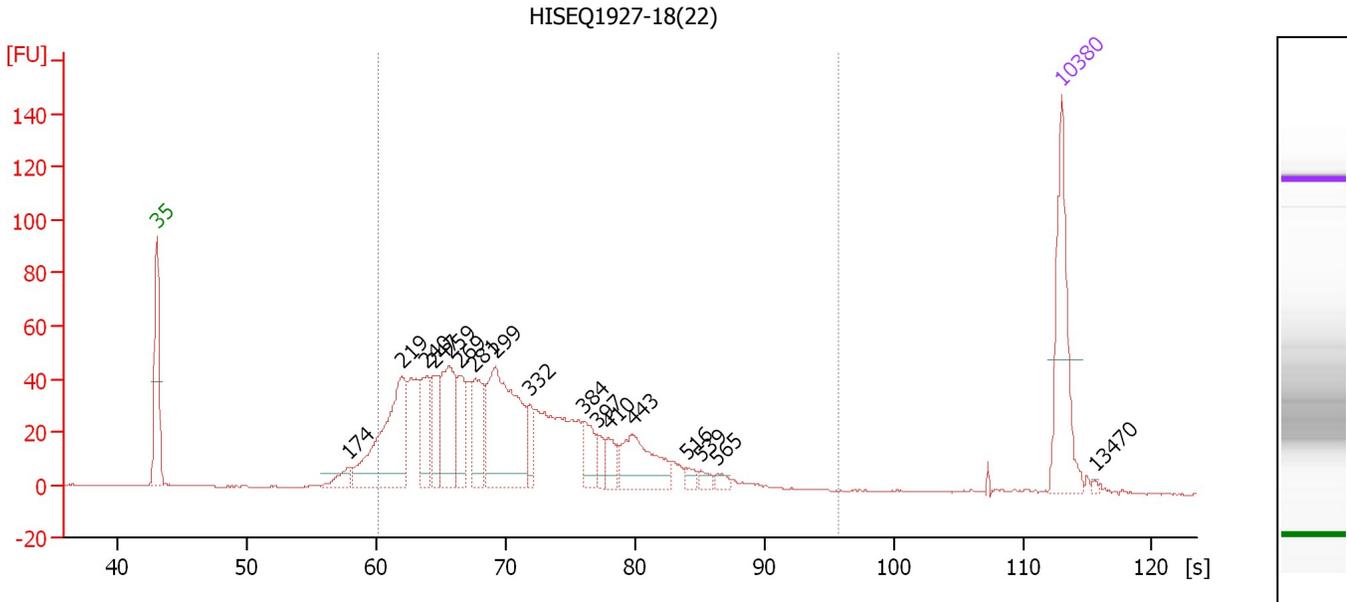
Region table for sample 10 : HISEQ1927-5(21)

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	328	364.50	456.6	1,874.5	88	31.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-11\2019-10-11_003.xad

Created: 10/11/2019 1:25:28 PM
 Modified: 10/11/2019 2:46:16 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : HISEQ1927-18(22)

Number of peaks found: 17 Corr. Area 1: 1,066.0
 Noise: 0.2

Peak table for sample 11 : HISEQ1927-18(22)

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	174	16.43	143.1		57.76
3	219	155.81	1,078.7		61.90
4	240	56.96	359.4		63.85
5	247	41.87	257.3		64.44
6	259	84.64	494.3		65.62
7	269	44.65	251.6		66.48
8	281	52.42	282.9		67.57
9	299	166.05	842.6		69.21
10	332	23.04	105.2		71.89
11	384	28.48	112.4		76.07
12	397	13.62	52.0		77.11
13	410	15.96	58.9		77.98
14	443	63.86	218.6		79.84
15	516	6.59	19.3		83.97
16	539	6.63	18.6		85.11
17	565	5.61	15.0		86.38
18	10,380	75.00	10.9	Upper Marker	113.00
19	13,470	0.00	0.0		115.54

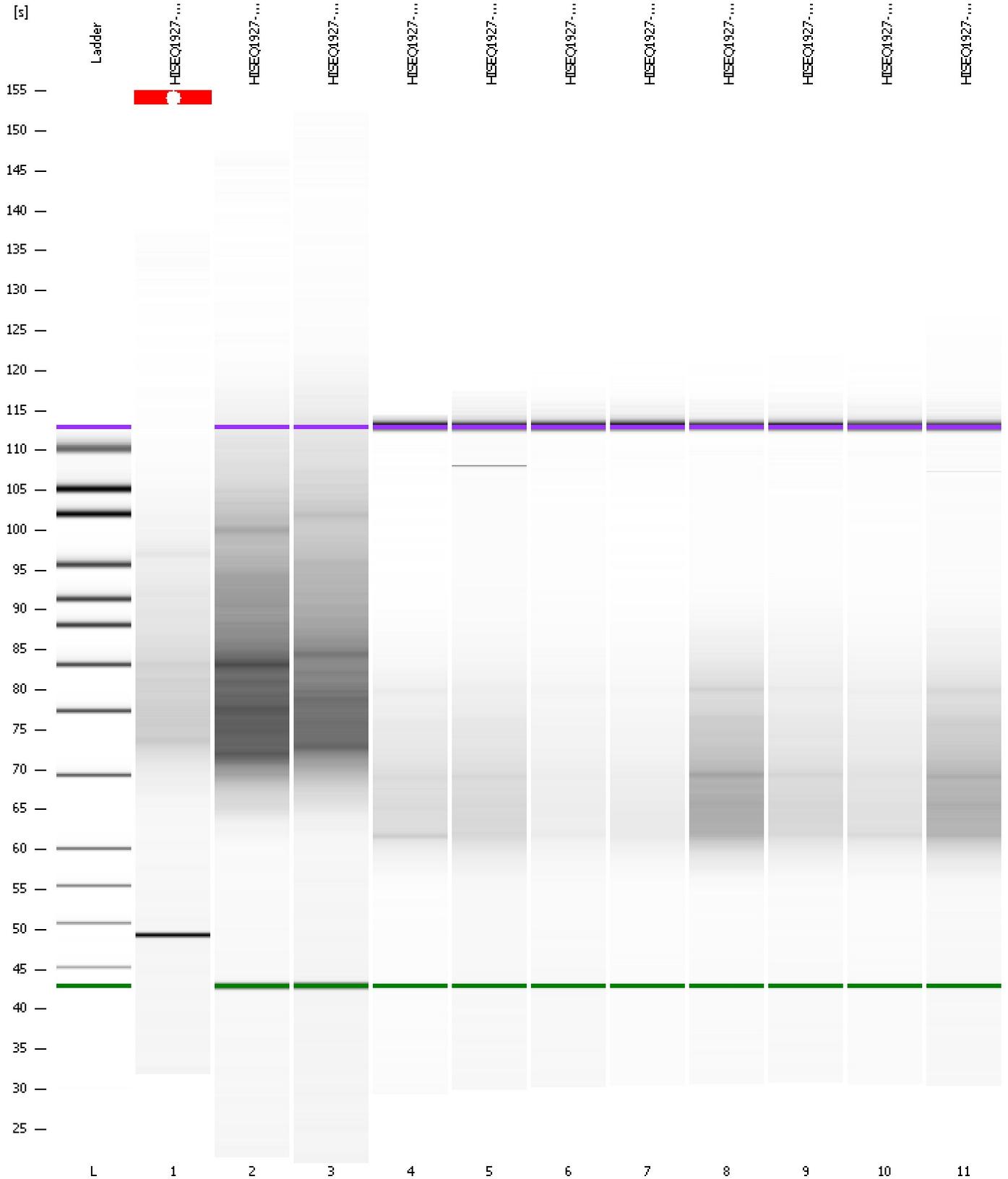
Region table for sample 11 : HISEQ1927-18(22)

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	324	986.45	1,066.0	5,075.9	93	29.3

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-11\2019-10-11_003.xad

Created: 10/11/2019 1:25:28 PM
Modified: 10/11/2019 2:46:16 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-11\2019-10-11_003.xad

Created: 10/11/2019 1:25:28 PM
 Modified: 10/11/2019 2:46:16 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		10/11/2019 2:05:54 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\2019-10-11\2019-10-11_003.xad)		Instrument	Run		10/11/2019 1:25:33 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938C		Instrument	Run		10/11/2019 1:25:33 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		10/11/2019 1:25:33 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		10/11/2019 1:25:33 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE34903152		Instrument	Run		10/11/2019 1:25:33 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		10/11/2019 1:25:33 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		10/11/2019 1:25:33 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1