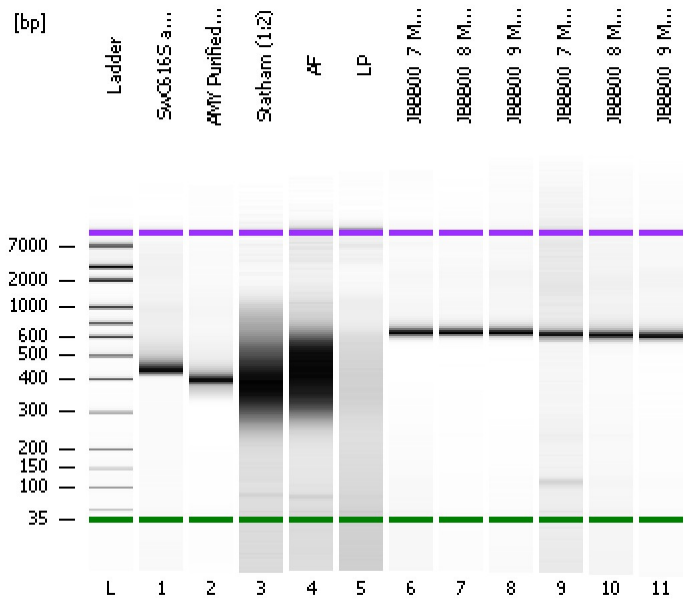
Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2016-03-02\2016-03-02_002.xad

Created: 3/2/2016 3:28:41 PM
Modified: 3/2/2016 4:10:34 PM

Electrophoresis File Run Summary



Instrument Information:

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

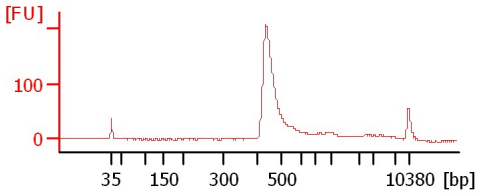
Assay Information:

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:

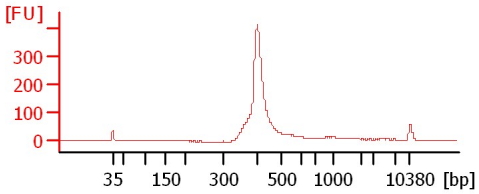
Chip Lot #:
Reagent Kit Lot #:
Chip Comments:

SwC616S amplicon QC (1:60)



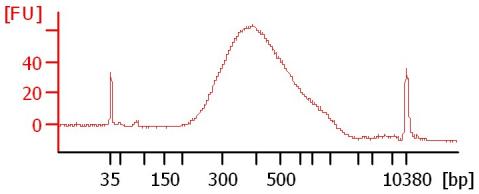
AMY Purified (1:5)

MiSeq_287



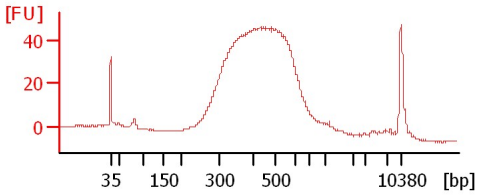
Statham (1:2)

MiSeq_288



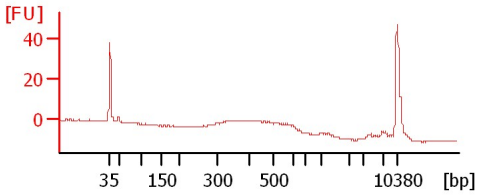
AF

QC_067



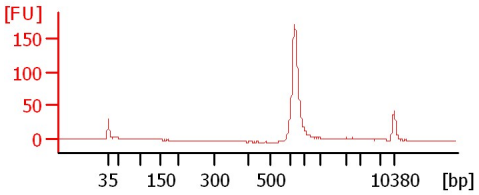
LP

QC_067



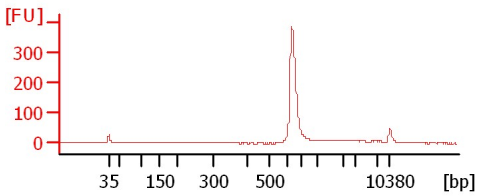
JBBB00_7 Ma BC

MiSeq_289



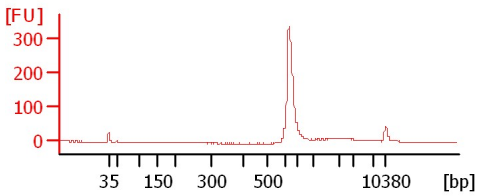
JBBB00_8 Ma BC

MiSeq_289



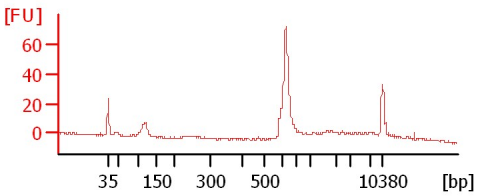
JBBB00_9 Ma BC

MiSeq_289



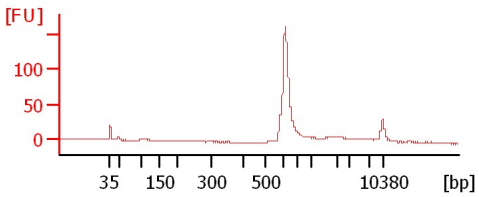
JBBB00_7 Mb BC

MiSeq_289



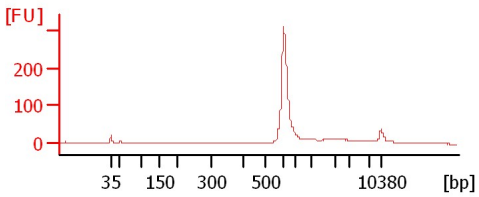
JBBB00_8 Mb BC

MiSeq_289



JBBB00_9 Mb BC

MiSeq_289



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2016-03-02\2016-03-02_002.xad

Created: 3/2/2016 3:28:41 PM
Modified: 3/2/2016 4:10:34 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
SwC616S amplicon QC (1:60)		☐	✔			
AMY Purified (1:5)	MiSeq_287	☐	✔			
Statham (1:2)	MiSeq_288	☐	✔			
AF	QC_067	☐	✔			
LP	QC_067	☐	✔			
JBBB00_7 Ma BC	MiSeq_289	☐	✔			
JBBB00_8 Ma BC	MiSeq_289	☐	✔			
JBBB00_9 Ma BC	MiSeq_289	☐	✔			
JBBB00_7 Mb BC	MiSeq_289	☐	✔			
JBBB00_8 Mb BC	MiSeq_289	☐	✔			
JBBB00_9 Mb BC	MiSeq_289	☐	✔			
Ladder		☐	✔			

Chip Lot # **Reagent Kit Lot #**

Chip Comments :

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2016-03-02\2016-03-02_002.xad

Created: 3/2/2016 3:28:41 PM
Modified: 3/2/2016 4:10:34 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

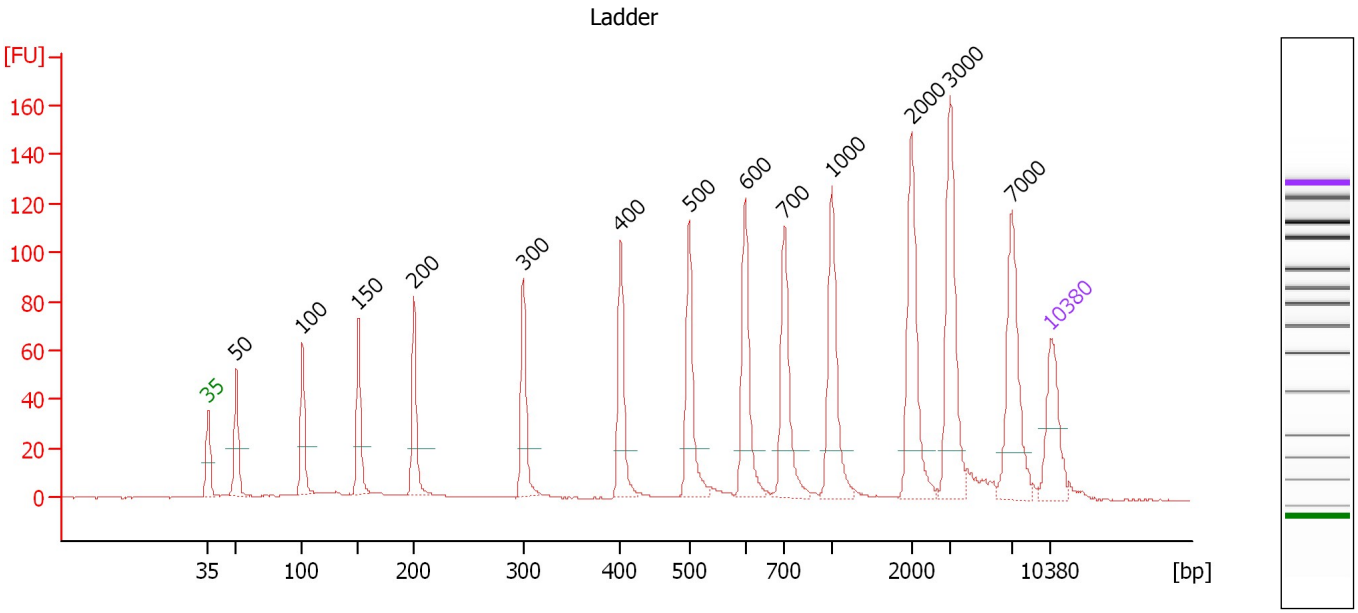
Ladder

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\2016-03-02\2016-03-02_002.xad

Created: 3/2/2016 3:28:41 PM
Modified: 3/2/2016 4:10:34 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

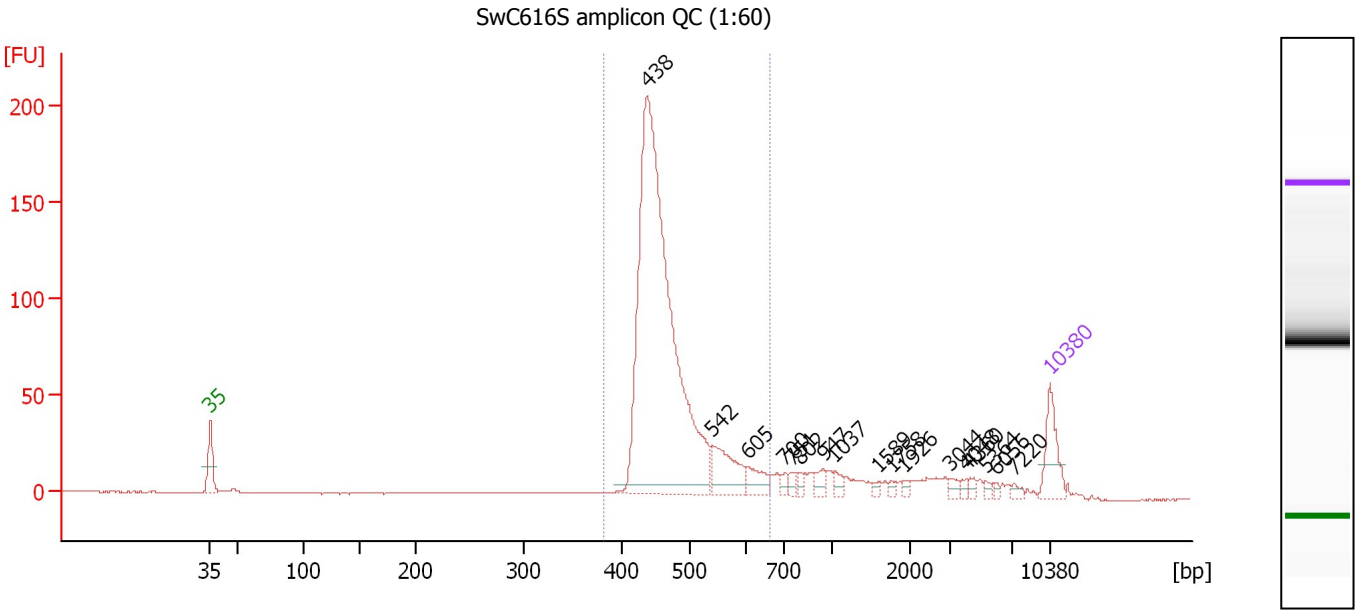
Peak table for Ladder

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	45.35
3		100	150.00	2,272.7	Ladder Peak	50.84
4		150	150.00	1,515.2	Ladder Peak	55.49
5		200	150.00	1,136.4	Ladder Peak	60.09
6		300	150.00	757.6	Ladder Peak	69.17
7		400	150.00	568.2	Ladder Peak	77.27
8		500	150.00	454.5	Ladder Peak	82.94
9		600	150.00	378.8	Ladder Peak	87.59
10		700	150.00	324.7	Ladder Peak	90.86
11		1,000	150.00	227.3	Ladder Peak	94.80
12		2,000	150.00	113.6	Ladder Peak	101.40
13		3,000	150.00	75.8	Ladder Peak	104.63
14		7,000	150.00	32.5	Ladder Peak	109.77
15		10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2016-03-02\2016-03-02_002.xad

Created: 3/2/2016 3:28:41 PM
Modified: 3/2/2016 4:10:34 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : SwC616S amplicon QC (1:60)

Number of peaks found:	17	Corr. Area 1:	922.1
Noise:	0.3		

Peak table for sample 1 : SwC616S amplicon QC (1:60)

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	438	1,544.14	5,336.9		79.44
3	542	123.89	346.6		84.87
4	605	50.01	125.2		87.76
5	700	13.28	28.7		90.87
6	751	14.56	29.4		91.53
7	802	14.04	26.5		92.20
8	947	21.18	33.9		94.11
9	1,037	17.31	25.3		95.04
10	1,589	7.72	7.4		98.69
11	1,758	7.29	6.3		99.80
12	1,926	8.46	6.7		100.91
13	3,044	11.71	5.8		104.69
14	4,048	8.03	3.0		105.98
15	4,360	9.48	3.3		106.38
16	5,364	7.80	2.2		107.67
17	6,056	5.91	1.5		108.56
18	7,220	9.39	2.0		109.98
19	10,380	75.00	10.9	Upper Marker	113.00

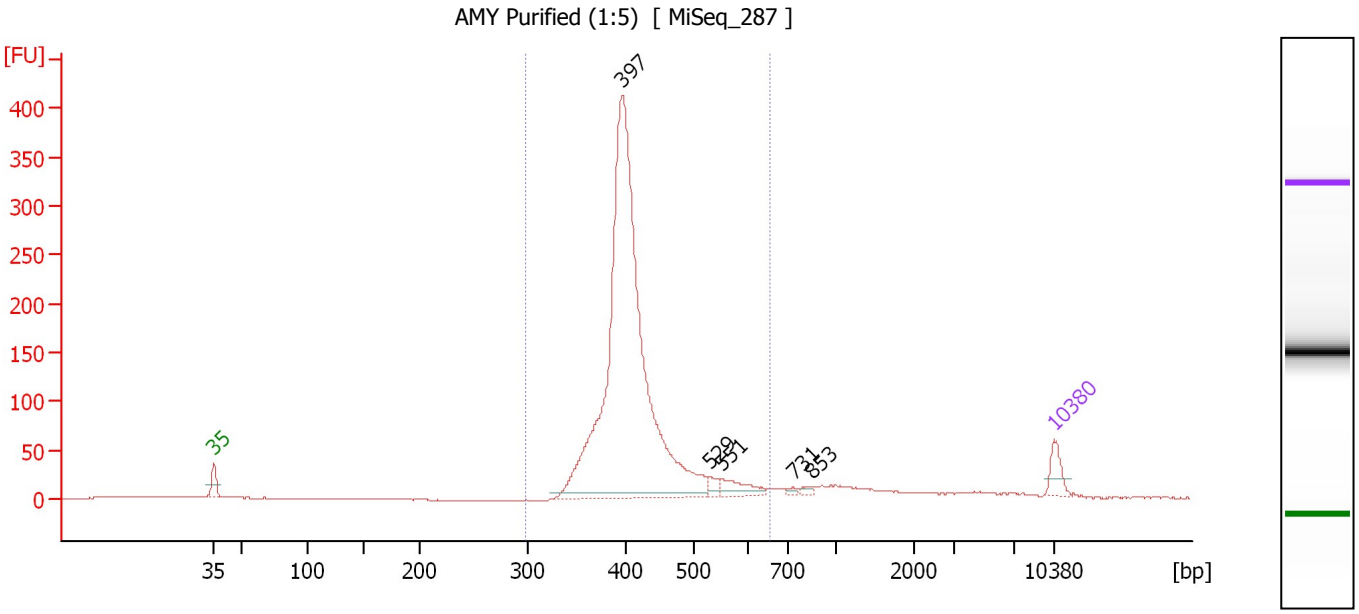
Region table for sample 1 : SwC616S amplicon QC (1:60)

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Color [pg/µl]	% of Total	Size distribution in CV [%]
382	661	472	922.1	5,556.7	1,711.39	79	10.6

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2016-03-02\2016-03-02_002.xad

Created: 3/2/2016 3:28:41 PM
Modified: 3/2/2016 4:10:34 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : AMY Purified (1:5)

Number of peaks found:	5	Corr. Area 1:	1,845.1
Noise:	0.3		

Peak table for sample 2 : AMY Purified (1:5)

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	397	3,579.04	13,651.7		77.04
3	529	44.46	127.3		84.29
4	551	109.99	302.4		85.31
5	731	15.46	32.1		91.27
6	853	18.31	32.5		92.87
7	10,380	75.00	10.9	Upper Marker	113.00

Region table for sample 2 : AMY Purified (1:5)

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Color [pg/µl]	% of Total	Size distribution in CV [%]
298	654	418	1,845.1	13,905.1	3,776.72	89	12.3

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2016-03-02\2016-03-02_002.xad

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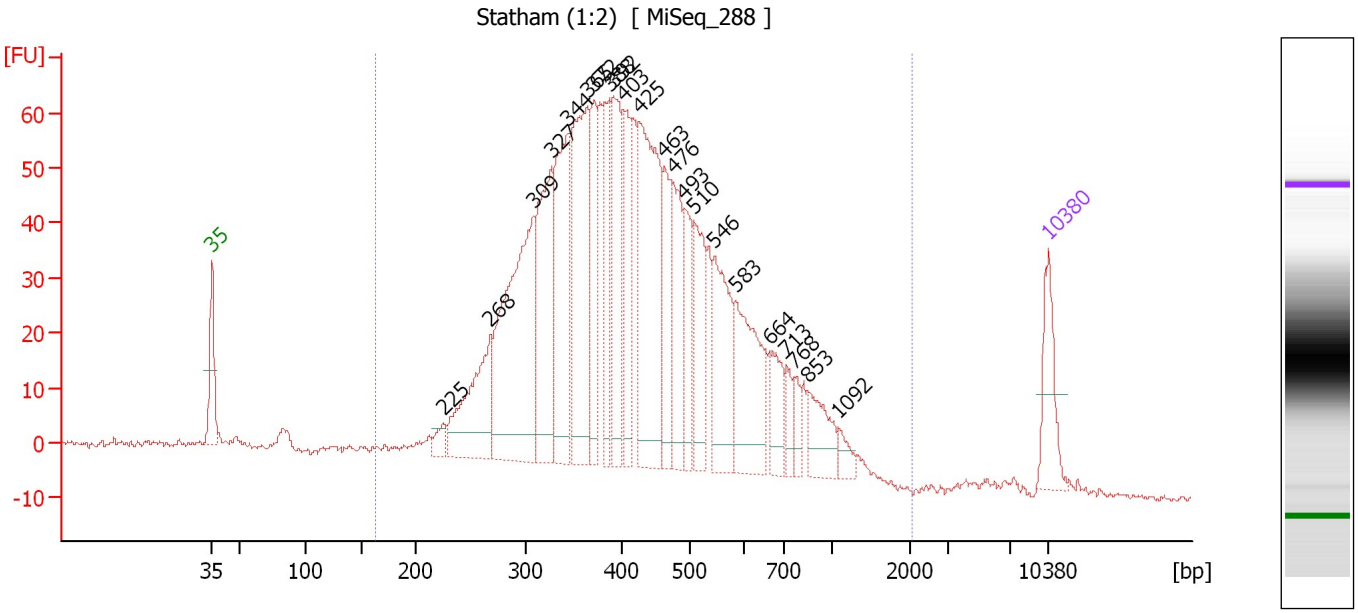

Overall Results for sample 3 : Statham (1:2)

Number of peaks found:	22	Corr. Area 1:	1,721.1
Noise:	0.7		

Peak table for sample 3 : Statham (1:2)

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	225	28.87	194.7		62.33
3	268	223.90	1,263.7		66.30
4	309	514.29	2,519.4		69.92
5	327	291.40	1,348.3		71.39
6	344	294.38	1,296.6		72.73
7	365	360.46	1,494.3		74.47
8	372	147.62	602.0		74.96
9	388	143.75	562.0		76.26
10	392	213.64	825.9		76.62
11	403	145.26	546.6		77.42
12	425	393.22	1,400.2		78.71
13	463	123.72	405.3		80.81
14	476	157.49	501.4		81.57
15	493	111.01	341.0		82.55
16	510	136.50	405.5		83.40
17	546	179.61	498.9		85.05
18	583	204.04	530.3		86.79
19	664	71.68	163.5		89.70
20	713	34.21	72.7		91.04
21	768	28.44	56.1		91.75
22	853	77.99	138.6		92.87
23	1,092	24.09	33.4		95.41
24	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2016-03-02\2016-03-02_002.xad

Created: 3/2/2016 3:28:41 PM
Modified: 3/2/2016 4:10:34 PM

Electropherogram Summary Continued ...

... Region table for sample 3 : Statham (1:2)

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/µl]	% of Total	Size distribution in CV [%]
163	2,033	448	1,721.1	17,762.5	4,517.09	97	38.6

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2016-03-02\2016-03-02_002.xad

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Modified: 3/2/2016 4:10:34 PM

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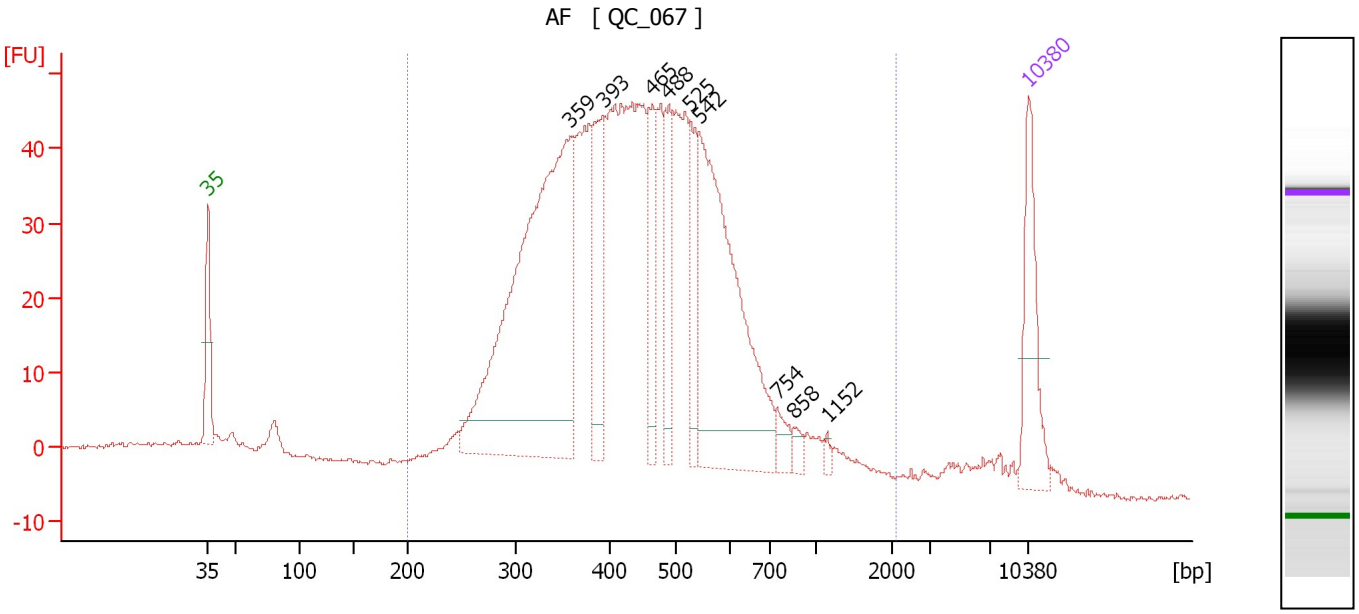

Overall Results for sample 4 : AF

Number of peaks found:	9	Corr. Area 1:	1,270.7
Noise:	0.3		

Peak table for sample 4 : AF

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	359	646.94	2,732.1		73.93
3	393	122.54	472.4		76.70
4	465	78.29	255.3		80.93
5	488	81.85	254.2		82.25
6	525	78.89	227.5		84.12
7	542	371.73	1,039.1		84.89
8	754	19.16	38.5		91.58
9	858	9.76	17.2		92.94
10	1,152	5.05	6.6		95.81
11	10,380	75.00	10.9	Upper Marker	113.00

Region table for sample 4 : AF

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Color [pg/µl]	% of Total	Size distribution in CV [%]
200	2,104	467	1,270.7	9,146.9	2,475.44	95	38.8

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2016-03-02\2016-03-02_002.xad

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Modified: 3/2/2016 4:10:34 PM

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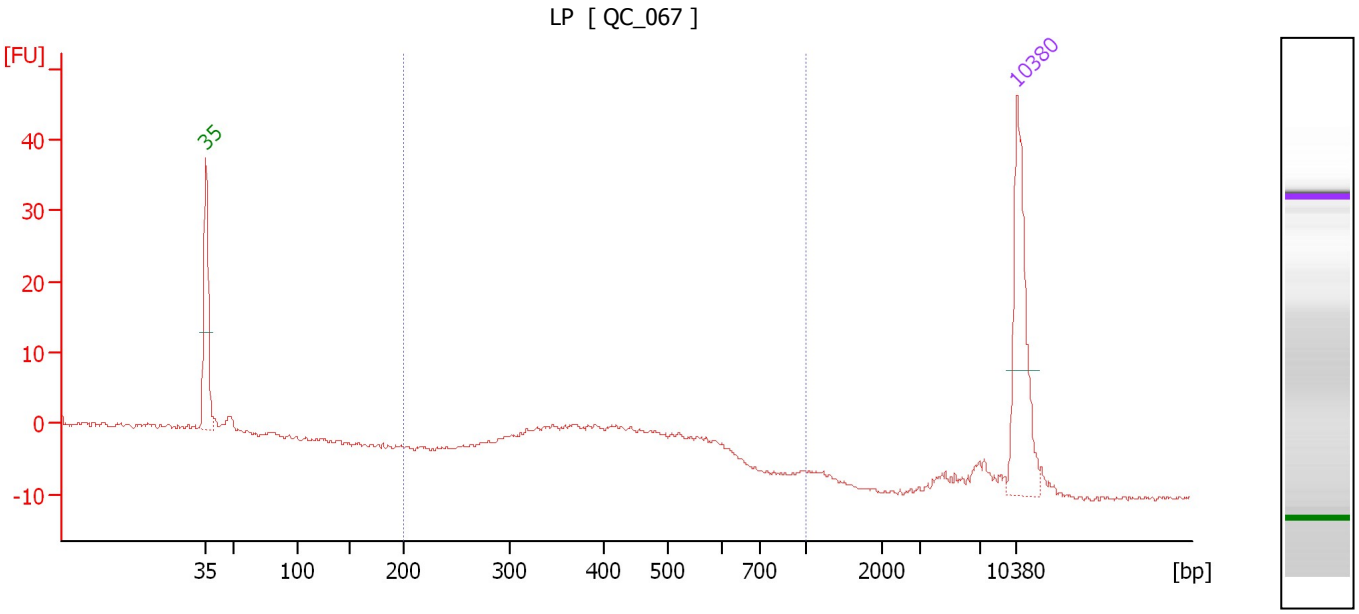


Overall Results for sample 5 : LP

Number of peaks found:	0	Corr. Area 1:	114.4
Noise:	0.2		

Peak table for sample 5 : LP

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

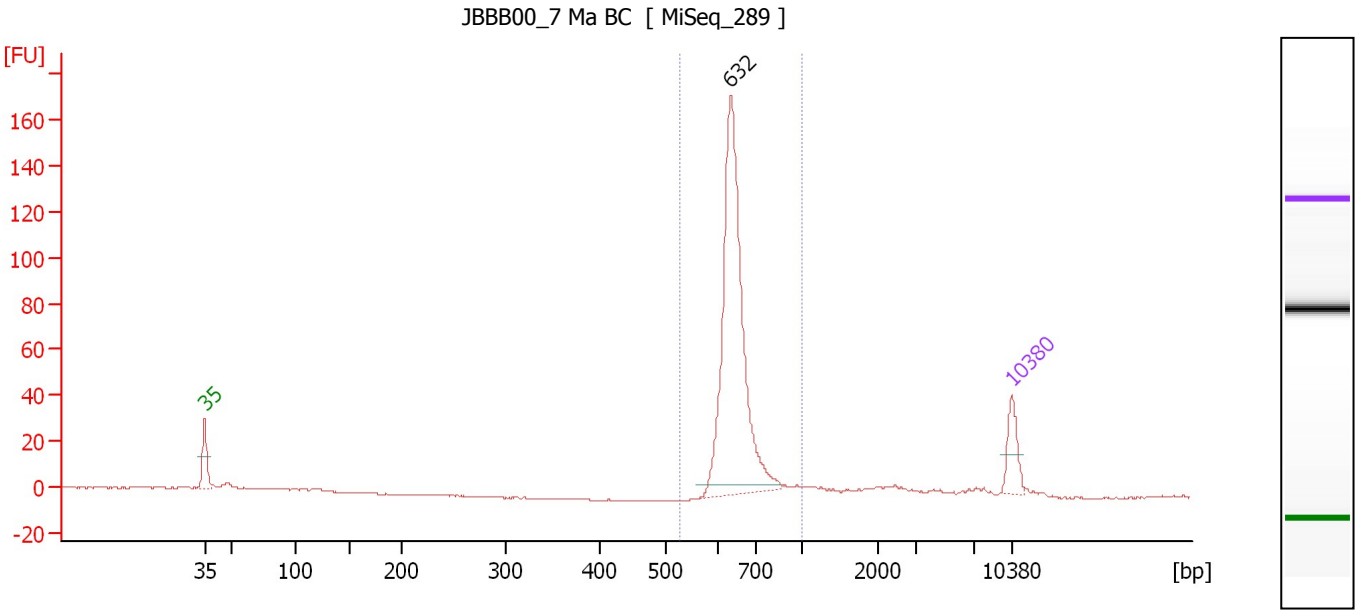
Region table for sample 5 : LP

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	432	114.4	777.5	204.91	72	23.4

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2016-03-02\2016-03-02_002.xad

Created: 3/2/2016 3:28:41 PM
Modified: 3/2/2016 4:10:34 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : JBBB00_7 Ma BC

Number of peaks found:	1	Corr. Area 1:	384.3
Noise:	0.2		

Peak table for sample 6 : JBBB00_7 Ma BC

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		632	1,001.50	2,402.9		88.62
3	▶	10,380	75.00	10.9	Upper Marker	113.00

Region table for sample 6 : JBBB00_7 Ma BC

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Color [pg/µl]	% of Total	Size distribution in CV [%]
529	1,000	650	384.3	2,346.7	1,001.84	89	8.2

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2016-03-02\2016-03-02_002.xad

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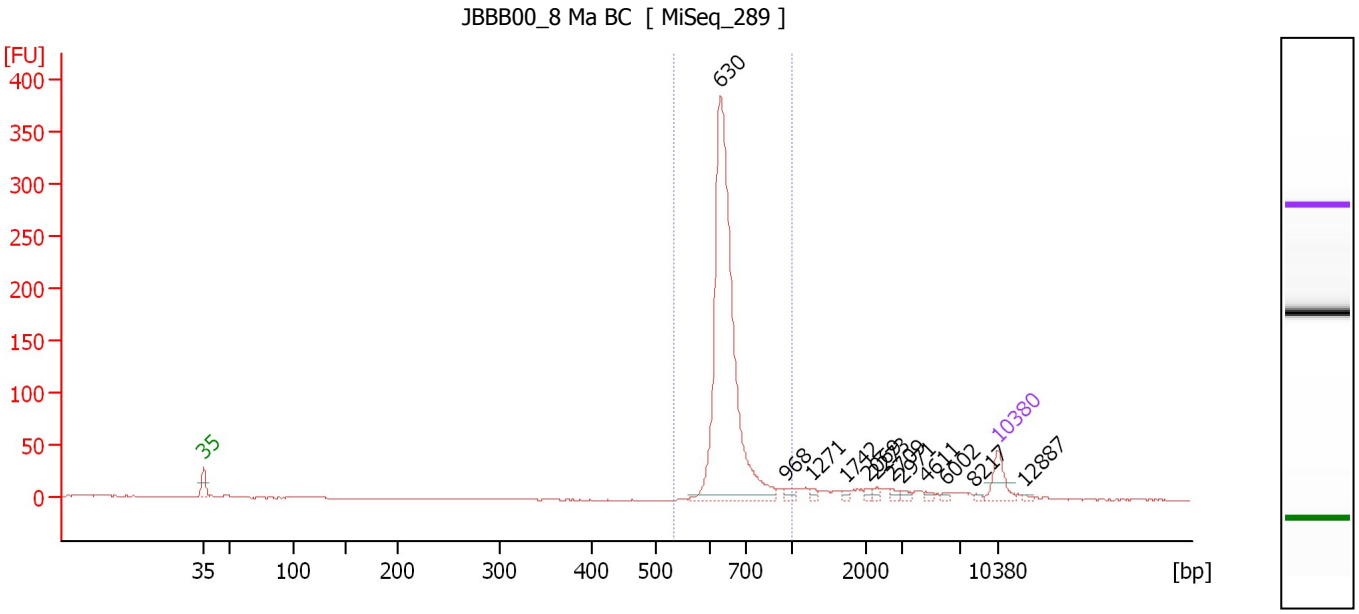
Modified: 3/2/2016 4:10:34 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : JBBB00_8 Ma BC

Number of peaks found:	12	Corr. Area 1:	817.0
Noise:	0.4		

Peak table for sample 7 : JBBB00_8 Ma BC

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	630	1,601.18	3,853.6		88.55
3	968	23.63	37.0		94.38
4	1,271	13.27	15.8		96.59
5	1,742	11.39	9.9		99.70
6	2,069	13.17	9.6		101.62
7	2,273	10.97	7.3		102.28
8	2,709	12.88	7.2		103.69
9	2,971	13.99	7.1		104.54
10	4,611	8.31	2.7		106.70
11	6,002	7.97	2.0		108.49
12	8,217	7.00	1.3		110.93
13	10,380	75.00	10.9	Upper Marker	113.00
14	12,887	0.00	0.0		115.40

Region table for sample 7 : JBBB00_8 Ma BC

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Color [pg/µl]	% of Total	Size distribution in CV [%]
533	1,000	655	817.0	3,718.5	1,597.62	83	9.0

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2016-03-02\2016-03-02_002.xad

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Modified: 3/2/2016 4:10:34 PM

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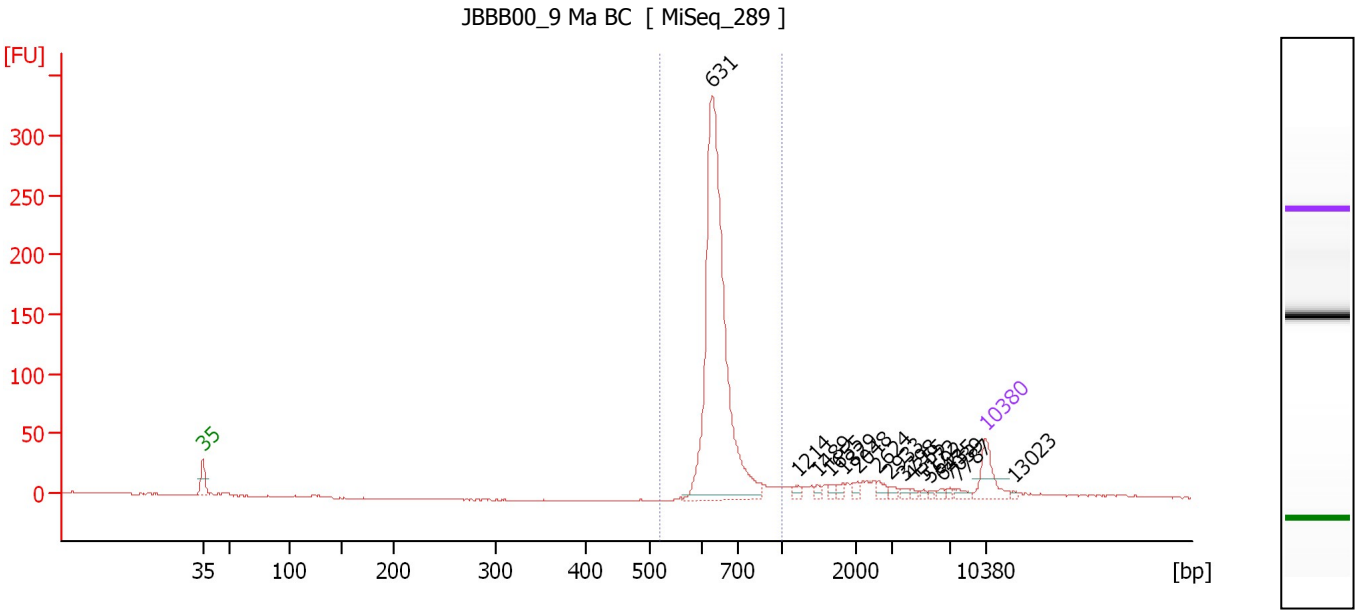


Overall Results for sample 8 : JBBB00_9 Ma BC

Number of peaks found:	16	Corr. Area 1:	722.5
Noise:	0.4		

Peak table for sample 8 : JBBB00_9 Ma BC

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	631	1,285.67	3,089.5		88.59
3	1,214	14.39	18.0		96.22
4	1,489	10.39	10.6		98.03
5	1,655	11.40	10.4		99.12
6	1,829	14.34	11.9		100.27
7	2,048	14.72	10.9		101.56
8	2,624	18.58	10.7		103.42
9	2,933	11.73	6.1		104.42
10	3,798	10.55	4.2		105.66
11	4,355	6.24	2.2		106.37
12	5,172	5.72	1.7		107.42
13	5,692	5.51	1.5		108.09
14	6,435	9.25	2.2		109.04
15	7,039	6.66	1.4		109.81
16	7,787	13.89	2.7		110.52
17	10,380	75.00	10.9	Upper Marker	113.00
18	13,023	0.00	0.0		115.53

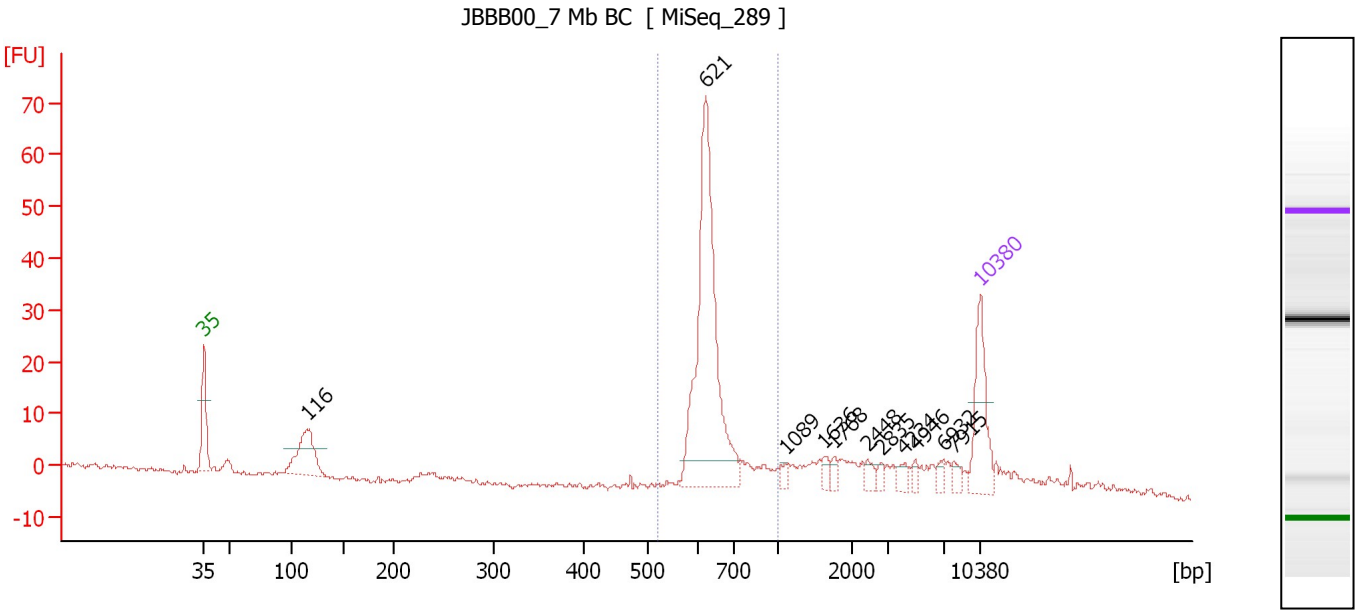
Region table for sample 8 : JBBB00_9 Ma BC

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Color [pg/µl]	% of Total	Size distribution in CV [%]
520	1,000	653	722.5	2,907.4	1,245.98	84	8.4

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2016-03-02\2016-03-02_002.xad

Created: 3/2/2016 3:28:41 PM
Modified: 3/2/2016 4:10:34 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : JBBB00_7 Mb BC

Number of peaks found:	11	Corr. Area 1:	169.9
Noise:	0.5		

Peak table for sample 9 : JBBB00_7 Mb BC

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	116	115.23	1,510.6		52.29
3	621	394.39	962.4		88.27
4	1,089	8.90	12.4		95.39
5	1,636	10.01	9.3		99.00
6	1,768	8.52	7.3		99.87
7	2,448	10.44	6.5		102.85
8	2,835	6.94	3.7		104.10
9	4,234	10.39	3.7		106.22
10	4,946	7.12	2.2		107.13
11	6,932	8.71	1.9		109.68
12	7,915	10.13	1.9		110.64
13	10,380	75.00	10.9	Upper Marker	113.00

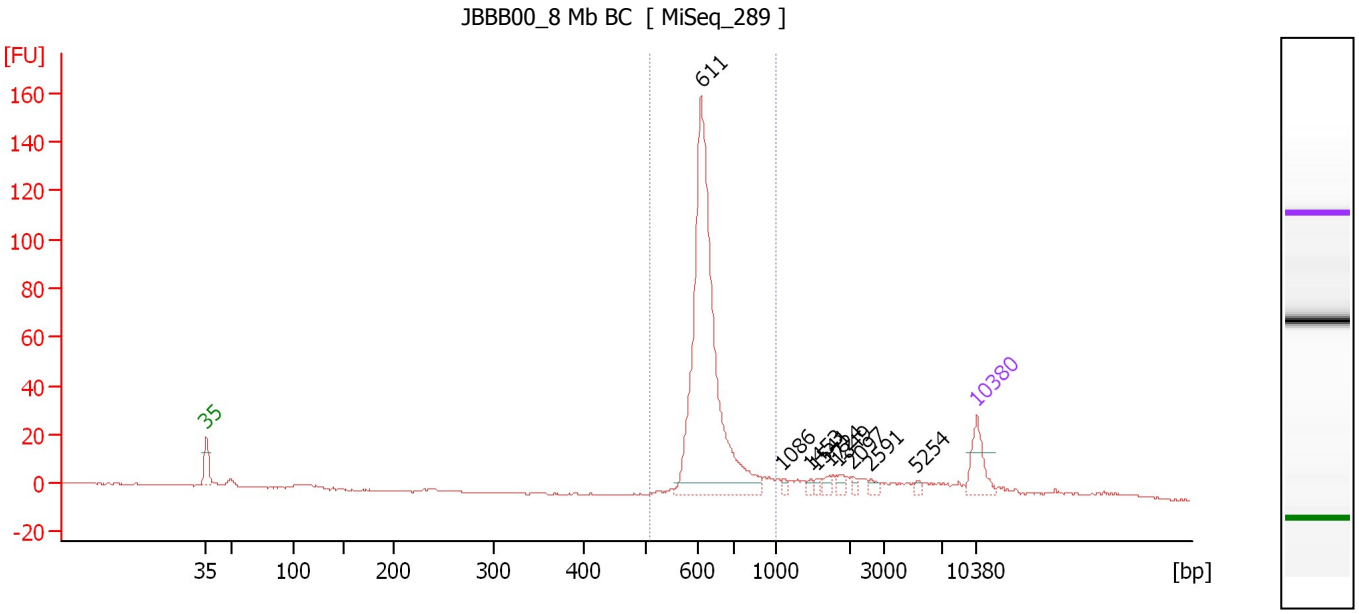
Region table for sample 9 : JBBB00_7 Mb BC

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Color [pg/µl]	% of Total	Size distribution in CV [%]
521	1,000	648	169.9	1,018.7	430.63	53	11.8

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2016-03-02\2016-03-02_002.xad

Created: 3/2/2016 3:28:41 PM
Modified: 3/2/2016 4:10:34 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : JBBB00_8 Mb BC

Number of peaks found:	9	Corr. Area 1:	391.0
Noise:	0.3		

Peak table for sample 10 : JBBB00_8 Mb BC

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	611	1,061.08	2,630.1		87.96
3	1,086	9.88	13.8		95.37
4	1,453	8.81	9.2		97.79
5	1,541	9.41	9.3		98.37
6	1,724	14.61	12.8		99.58
7	1,849	14.30	11.7		100.40
8	2,097	9.58	6.9		101.71
9	2,591	11.46	6.7		103.31
10	5,254	8.35	2.4		107.53
11	10,380	75.00	10.9	Upper Marker	113.00

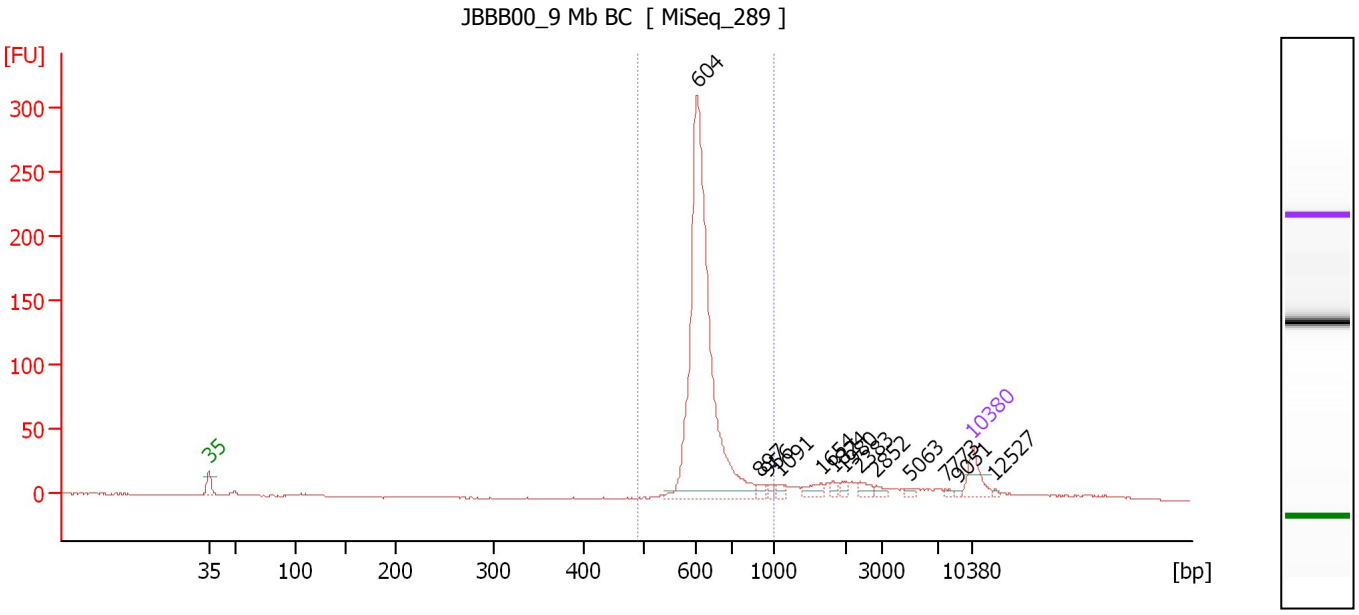
Region table for sample 10 : JBBB00_8 Mb BC

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Color [pg/µl]	% of Total	Size distribution in CV [%]
507	1,000	641	391.0	2,557.2	1,071.00	75	11.1

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2016-03-02\2016-03-02_002.xad

Created: 3/2/2016 3:28:41 PM
Modified: 3/2/2016 4:10:34 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : JBBB00_9 Mb BC

Number of peaks found:	13	Corr. Area 1:	716.0
Noise:	0.3		

Peak table for sample 11 : JBBB00_9 Mb BC

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	604	1,510.19	3,786.3		87.73
3	897	16.98	28.7		93.45
4	956	12.97	20.5		94.23
5	1,091	19.74	27.4		95.40
6	1,654	36.95	33.8		99.12
7	1,824	14.22	11.8		100.24
8	1,980	18.23	13.9		101.27
9	2,383	25.18	16.0		102.64
10	2,852	17.40	9.2		104.15
11	5,063	10.07	3.0		107.28
12	7,773	8.20	1.6		110.51
13	9,051	5.59	0.9		111.73
14	10,380	75.00	10.9	Upper Marker	113.00
15	12,527	0.00	0.0		115.05

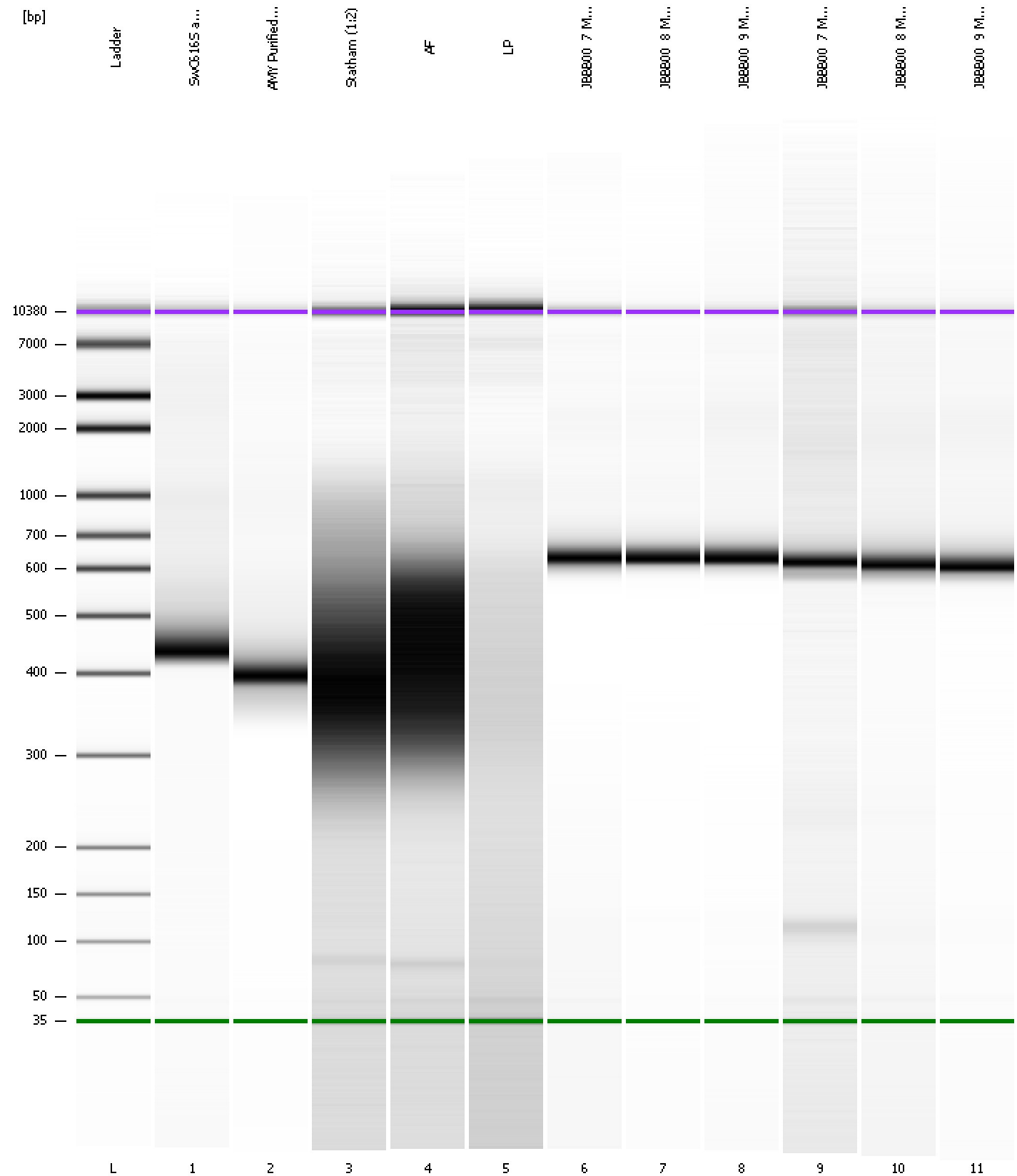
Region table for sample 11 : JBBB00_9 Mb BC

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Color [pg/µl]	% of Total	Size distribution in CV [%]
488	1,000	634	716.0	3,738.8	1,549.74	78	10.6

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2016-03-02\2016-03-02_002.xad

Created: 3/2/2016 3:28:41 PM
Modified: 3/2/2016 4:10:34 PM

Gel Image



Assay Class: High Sensitivity DNA Assay Created: 3/2/2016 3:28:41 PM
Data Path: C:\...ents and Settings\Bioanalyzer\2016-03-02\2016-03-02_002.xad Modified: 3/2/2016 4:10:34 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		3/2/2016 4:10:00 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2016-03-02\2016-03-02_002.xad)		Instrument	Run		3/2/2016 3:28:46 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		3/2/2016 3:28:46 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		3/2/2016 3:28:46 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		3/2/2016 3:28:46 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		3/2/2016 3:28:46 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		3/2/2016 3:28:46 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		3/2/2016 3:28:46 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1