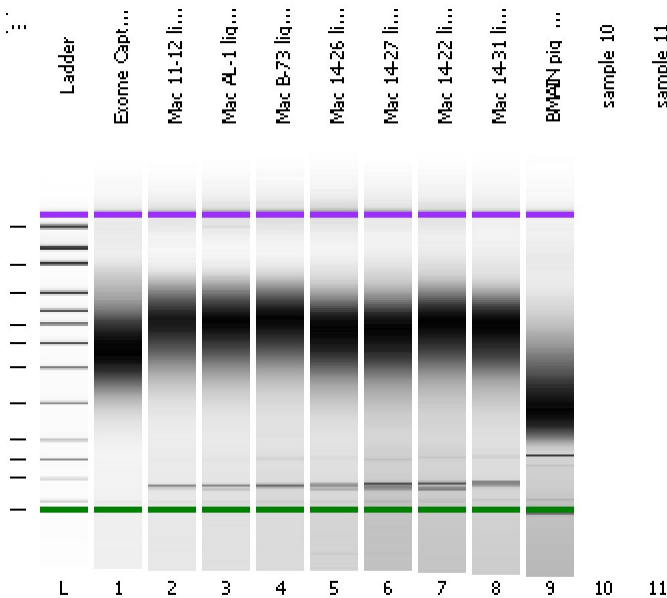


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-15\2016-04-15_001.xad

Created: 4/15/2016 3:48:57 PM
Modified: 4/15/2016 4:28:43 PM

Electrophoresis File Run Summary



Instrument Information:

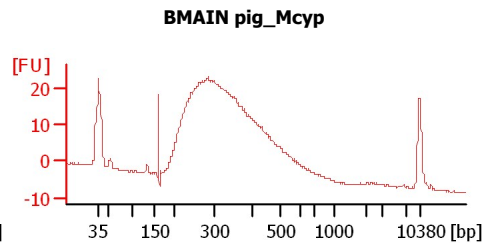
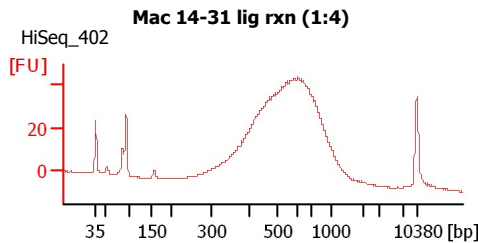
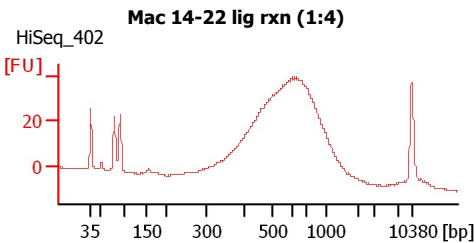
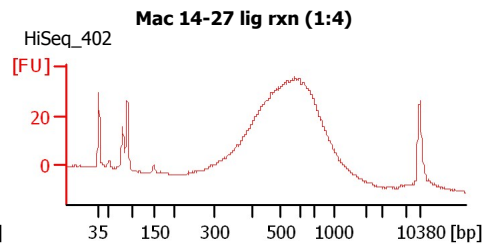
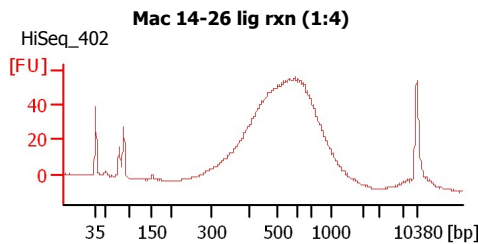
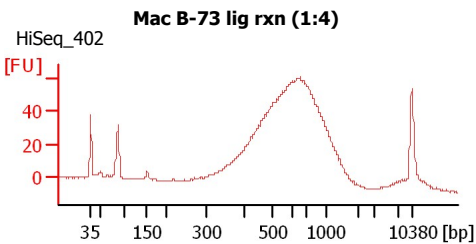
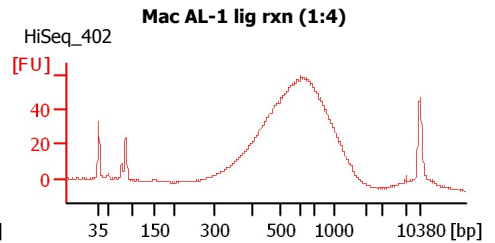
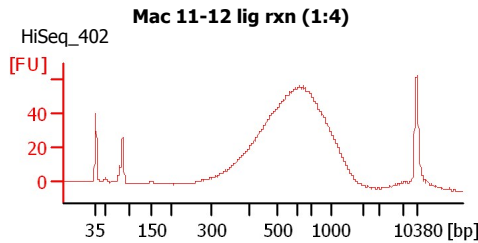
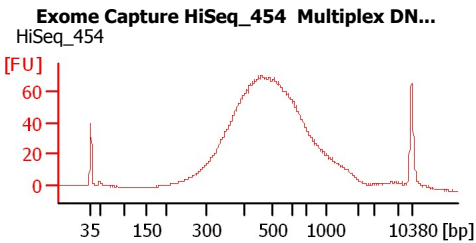
Instrument Name: DE13701086 Firmware: C.01.069
Serial#: DE13701086 Type: G2938B

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:\... bioanalyzer\2100 expert\data\2016-04-15\2016-04-15_001.xad

Created: 4/15/2016 3:48:57 PM
 Modified: 4/15/2016 4:28:43 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
Exome Capture HiSeq_454	HiSeq_454	<input type="checkbox"/>	✓			
Multiplex DNA Library Pool (1:28)						
Mac 11-12 lig rxn (1:4)	HiSeq_402	<input type="checkbox"/>	✓			
Mac AL-1 lig rxn (1:4)	HiSeq_402	<input type="checkbox"/>	✓			
Mac B-73 lig rxn (1:4)	HiSeq_402	<input type="checkbox"/>	✓			
Mac 14-26 lig rxn (1:4)	HiSeq_402	<input type="checkbox"/>	✓			
Mac 14-27 lig rxn (1:4)	HiSeq_402	<input type="checkbox"/>	✓			
Mac 14-22 lig rxn (1:4)	HiSeq_402	<input type="checkbox"/>	✓			
Mac 14-31 lig rxn (1:4)	HiSeq_402	<input type="checkbox"/>	✓			
BMAIN pig_Mcyp		<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\2016-04-15\2016-04-15_001.xad

Created: 4/15/2016 3:48:57 PM
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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

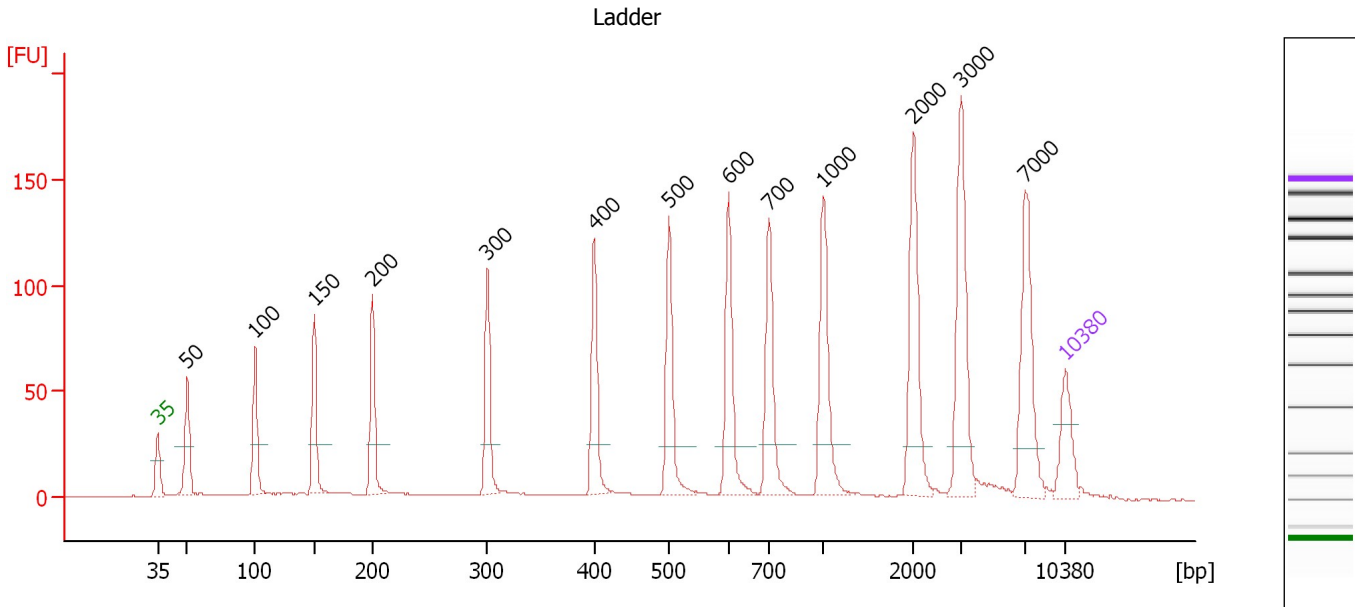
Ladder

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\2016-04-15\2016-04-15_001.xad

Created: 4/15/2016 3:48:57 PM
 Modified: 4/15/2016 4:28:43 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

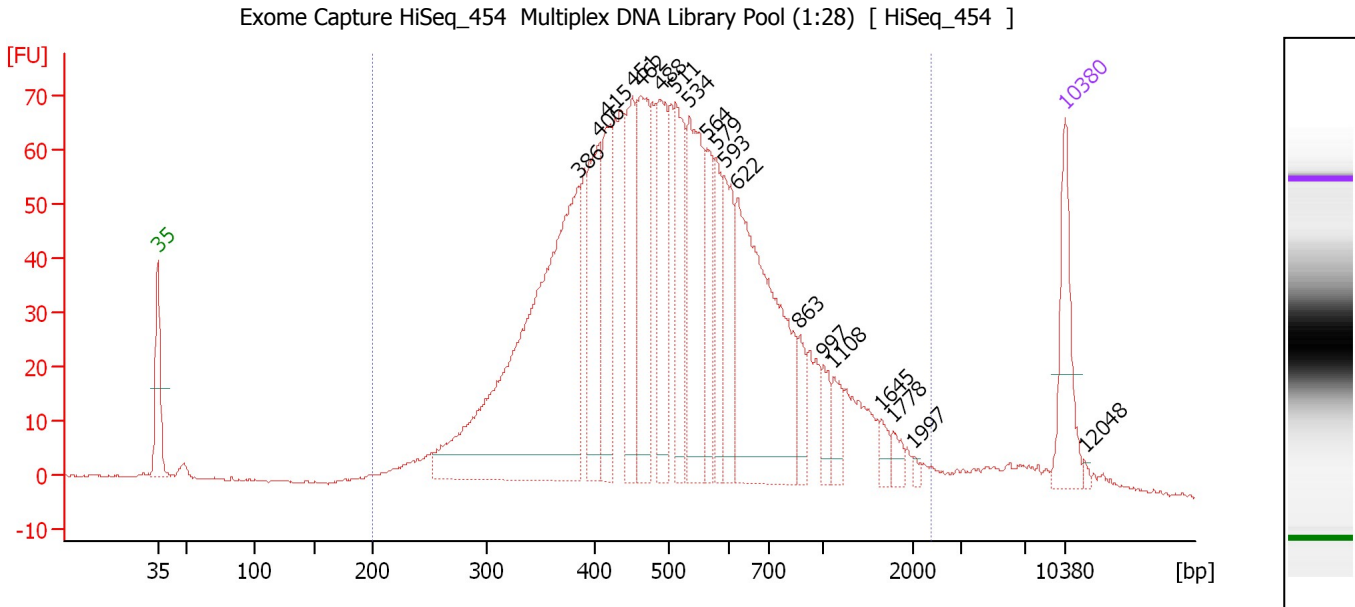
Peak table for Ladder

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	45.29
3	100	150.00	2,272.7	Ladder Peak	50.52
4	150	150.00	1,515.2	Ladder Peak	55.10
5	200	150.00	1,136.4	Ladder Peak	59.59
6	300	150.00	757.6	Ladder Peak	68.44
7	400	150.00	568.2	Ladder Peak	76.69
8	500	150.00	454.5	Ladder Peak	82.47
9	600	150.00	378.8	Ladder Peak	87.05
10	700	150.00	324.7	Ladder Peak	90.17
11	1,000	150.00	227.3	Ladder Peak	94.39
12	2,000	150.00	113.6	Ladder Peak	101.31
13	3,000	150.00	75.8	Ladder Peak	104.98
14	7,000	150.00	32.5	Ladder Peak	109.93
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-15\2016-04-15_001.xad

Created: 4/15/2016 3:48:57 PM
 Modified: 4/15/2016 4:28:43 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : Exome Capture HiSeq 454 Multiplex DNA Library Pool (1:28)

Number of peaks found: 19 Corr. Area 1: 1,775.7
 Noise: 0.2

Peak table for sample 1 : Exome Capture HiSeq 454 Multiplex DNA Library Pool (1:28)

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	386	673.60	2,641.8		75.57
3	406	161.52	602.9		77.04
4	415	117.11	427.1		77.59
5	451	136.71	459.0		79.65
6	462	166.86	547.7		80.25
7	488	147.76	458.9		81.77
8	511	126.73	376.0		82.96
9	534	184.08	522.6		84.02
10	564	82.90	222.8		85.40
11	579	67.49	176.7		86.08
12	593	100.16	256.0		86.73
13	622	345.30	841.2		87.74
14	863	30.84	54.1		92.47
15	997	27.35	41.5		94.35
16	1,108	27.02	37.0		95.13
17	1,645	12.79	11.8		98.85
18	1,778	12.69	10.8		99.77
19	1,997	4.16	3.2		101.29
20	10,380	75.00	10.9	Upper Marker	113.00
21	12,048	0.00	0.0		114.52

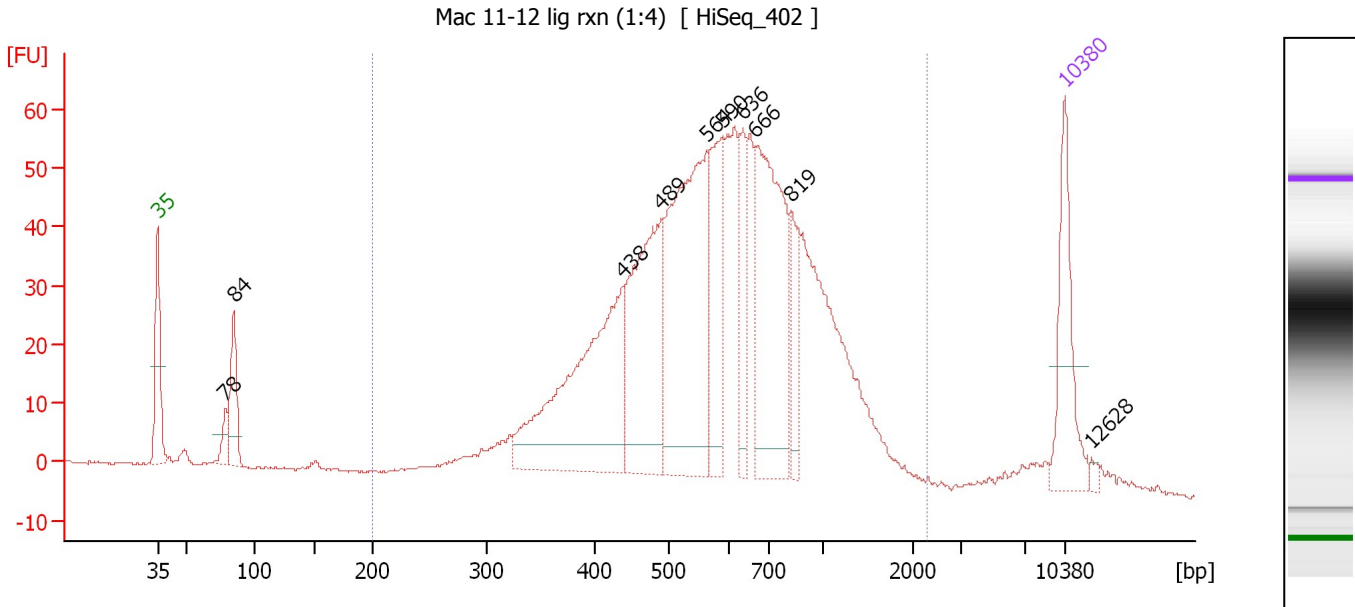
Region table for sample 1 : Exome Capture HiSeq 454 Multiplex DNA Library Pool (1:28)

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	2,378	575	1,775.7	10,285.5	3,134.08	96	53.7

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-15\2016-04-15_001.xad

Created: 4/15/2016 3:48:57 PM
 Modified: 4/15/2016 4:28:43 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : Mac 11-12 lig rxn (1:4)

Number of peaks found: 10 Corr. Area 1: 1,227.0
 Noise: 0.2

Peak table for sample 2 : Mac 11-12 lig rxn (1:4)

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	78	21.79	423.2		48.22
3	84	70.80	1,275.5		48.86
4	438	295.79	1,024.3		78.86
5	489	215.94	669.6		81.81
6	564	306.02	822.2		85.40
7	590	100.14	257.3		86.58
8	636	57.77	137.7		88.17
9	666	229.31	521.4		89.12
10	819	49.90	92.3		91.85
11	10,380	75.00	10.9	Upper Marker	113.00
12	12,628	0.00	0.0		115.04

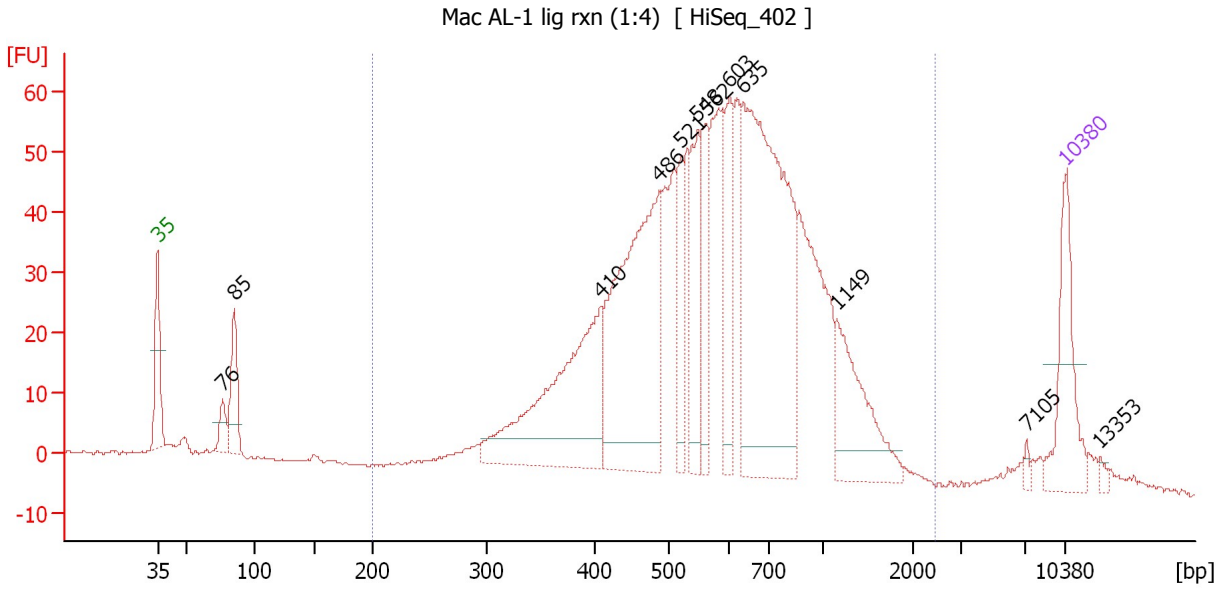
Region table for sample 2 : Mac 11-12 lig rxn (1:4)

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	2,299	656	1,227.0	5,193.4	1,861.05	92	43.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-15\2016-04-15_001.xad

Created: 4/15/2016 3:48:57 PM
 Modified: 4/15/2016 4:28:43 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : Mac AL-1 lig rxn (1:4)

Number of peaks found: 12 Corr. Area 1: 1,289.2
 Noise: 0.3

Peak table for sample 3 : Mac AL-1 lig rxn (1:4)

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	76	26.03	517.2		48.04
3	85	70.90	1,270.2		48.91
4	410	275.61	1,019.7		77.24
5	486	354.42	1,104.0		81.69
6	521	62.43	181.6		83.43
7	548	93.73	259.2		84.66
8	562	70.58	190.4		85.30
9	603	87.03	218.8		87.13
10	635	431.98	1,030.9		88.14
11	1,149	102.46	135.1		95.42
12	7,105	4.23	0.9		110.02
13	10,380	75.00	10.9	Upper Marker	113.00
14	13,353	0.00	0.0		115.70

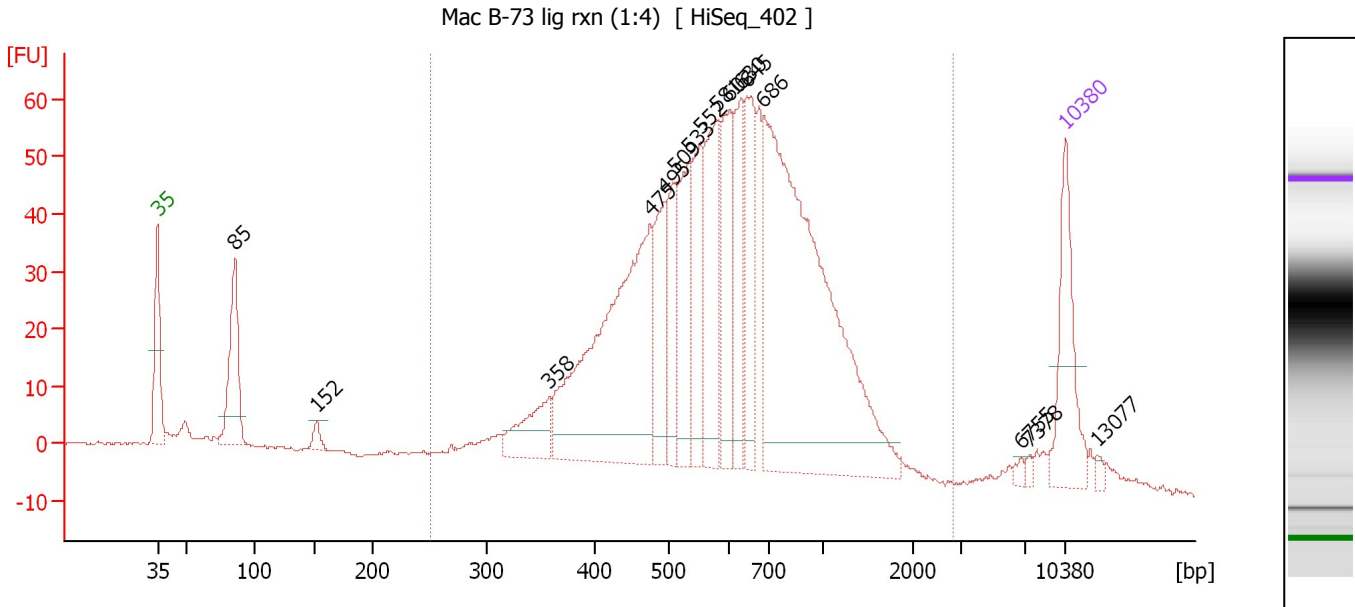
Region table for sample 3 : Mac AL-1 lig rxn (1:4)

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	2,472	651	1,289.2	6,012.7	2,136.21	91	43.9

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-15\2016-04-15_001.xad

Created: 4/15/2016 3:48:57 PM
 Modified: 4/15/2016 4:28:43 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : Mac B-73 lig rxn (1:4)

Number of peaks found: 16 Corr. Area 1: 1,278.5
 Noise: 0.3

Peak table for sample 4 : Mac B-73 lig rxn (1:4)

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	85	117.42	2,089.8		48.96
3	152	12.34	122.9		55.30
4	358	58.89	249.2		73.24
5	475	370.45	1,182.5		81.01
6	495	81.34	249.1		82.16
7	509	70.58	209.9		82.90
8	533	98.35	279.8		83.96
9	552	84.70	232.6		84.84
10	581	118.44	308.9		86.18
11	602	97.97	246.7		87.11
12	630	81.81	196.8		87.99
13	645	92.91	218.3		88.45
14	686	548.06	1,210.0		89.74
15	6,755	3.93	0.9		109.62
16	7,378	3.30	0.7		110.27
17	10,380	75.00	10.9	Upper Marker	113.00
18	13,077	0.00	0.0		115.45

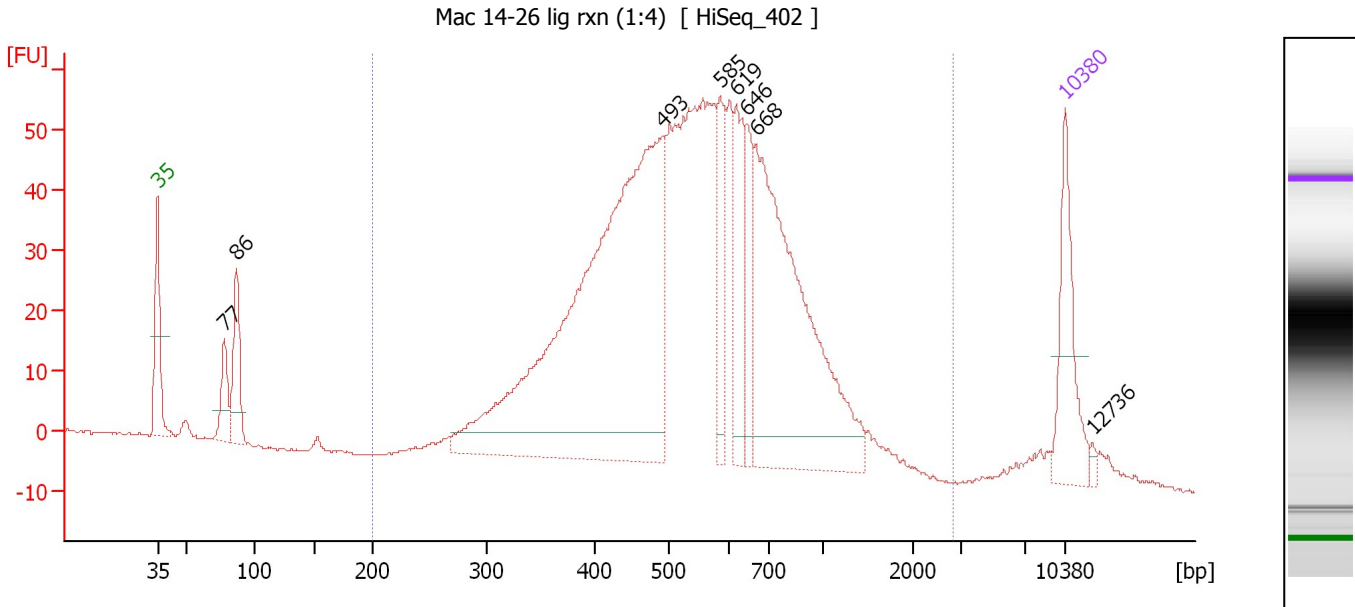
Region table for sample 4 : Mac B-73 lig rxn (1:4)

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
251	2,821	669	1,278.5	5,208.1	1,908.98	87	44.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-15\2016-04-15_001.xad

Created: 4/15/2016 3:48:57 PM
 Modified: 4/15/2016 4:28:43 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : Mac 14-26 lig rxn (1:4)

Number of peaks found: 8 Corr. Area 1: 1,303.0
 Noise: 0.3

Peak table for sample 5 : Mac 14-26 lig rxn (1:4)

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	77	48.24	943.2		48.17
3	86	82.03	1,438.4		49.10
4	493	820.54	2,523.2		82.05
5	585	68.81	178.2		86.38
6	619	88.14	215.9		87.63
7	646	57.63	135.3		88.47
8	668	408.72	927.2		89.17
9	10,380	75.00	10.9	Upper Marker	113.00
10	12,736	0.00	0.0		115.14

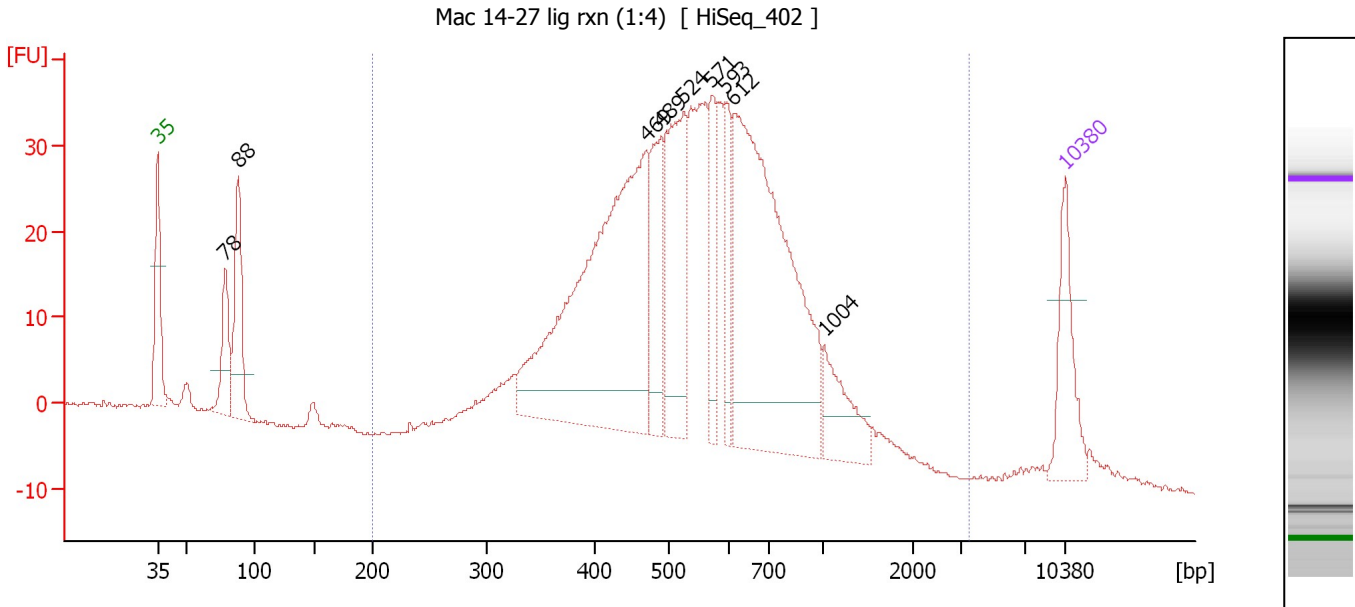
Region table for sample 5 : Mac 14-26 lig rxn (1:4)

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	2,819	593	1,303.0	6,298.6	2,094.30	91	42.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-15\2016-04-15_001.xad

Created: 4/15/2016 3:48:57 PM
 Modified: 4/15/2016 4:28:43 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : Mac 14-27 lig rxn (1:4)

Number of peaks found: 9 Corr. Area 1: 884.9
 Noise: 0.3

Peak table for sample 6 : Mac 14-27 lig rxn (1:4)

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	78	87.91	1,708.1		48.22
3	88	140.93	2,432.5		49.24
4	469	626.26	2,023.3		80.68
5	489	115.11	356.6		81.84
6	524	204.47	591.3		83.57
7	571	82.37	218.7		85.71
8	593	67.93	173.6		86.73
9	612	534.74	1,323.7		87.43
10	1,004	72.41	109.3		94.42
11	10,380	75.00	10.9	Upper Marker	113.00

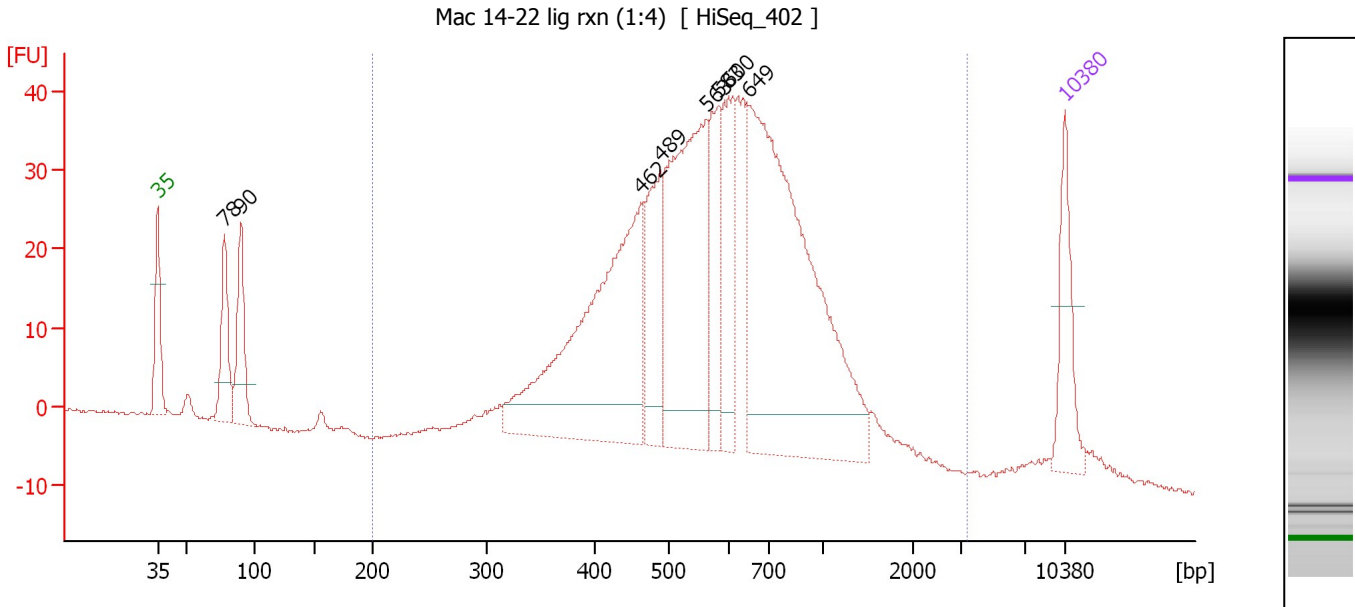
Region table for sample 6 : Mac 14-27 lig rxn (1:4)

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	3,465	596	884.9	7,067.1	2,344.86	88	44.3

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-15\2016-04-15_001.xad

Created: 4/15/2016 3:48:57 PM
 Modified: 4/15/2016 4:28:43 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : Mac 14-22 lig rxn (1:4)

Number of peaks found: 8 Corr. Area 1: 924.2
 Noise: 0.2

Peak table for sample 7 : Mac 14-22 lig rxn (1:4)

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	78	111.57	2,180.8		48.17
3	90	119.33	2,016.7		49.44
4	462	507.06	1,661.2		80.30
5	489	144.48	448.1		81.81
6	563	375.52	1,009.9		85.38
7	583	104.91	272.7		86.27
8	600	128.25	323.6		87.07
9	649	655.23	1,530.5		88.57
10	10,380	75.00	10.9	Upper Marker	113.00

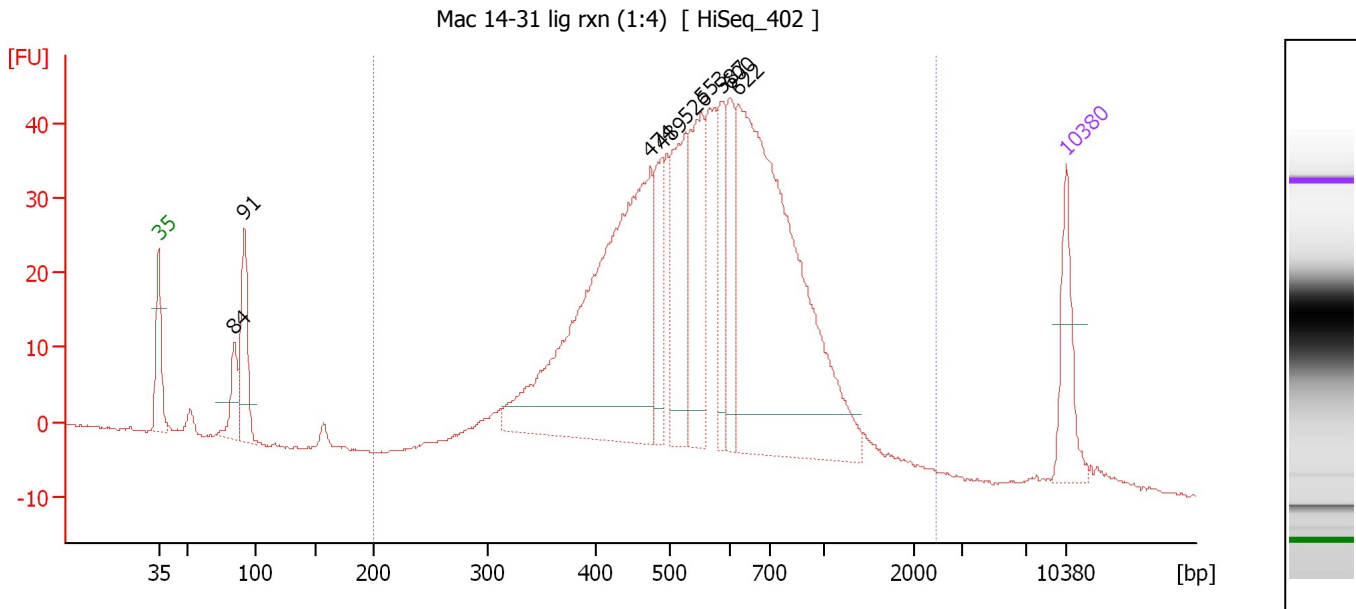
Region table for sample 7 : Mac 14-22 lig rxn (1:4)

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	3,416	652	924.2	6,464.5	2,290.92	89	48.5

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-15\2016-04-15_001.xad

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 Modified: 4/15/2016 4:28:43 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : Mac 14-31 lig rxn (1:4)

Number of peaks found: 9 Corr. Area 1: 983.7
 Noise: 0.2

Peak table for sample 8 : Mac 14-31 lig rxn (1:4)

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	84	68.14	1,229.8		48.84
3	91	140.07	2,327.8		49.59
4	474	737.90	2,358.7		80.97
5	489	91.53	283.8		81.82
6	526	181.38	522.7		83.65
7	553	181.01	496.4		84.88
8	587	91.88	237.0		86.48
9	600	97.57	246.5		87.04
10	622	753.88	1,835.3		87.75
11	10,380	75.00	10.9	Upper Marker	113.00

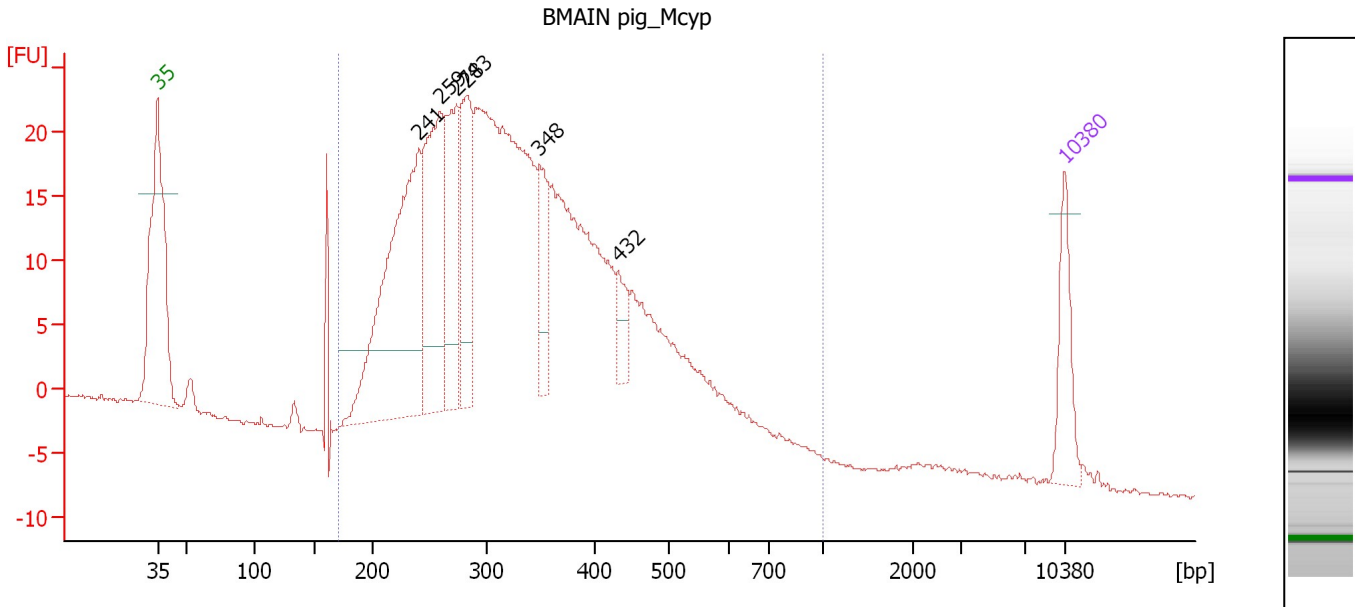
Region table for sample 8 : Mac 14-31 lig rxn (1:4)

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	2,448	605	983.7	8,050.6	2,742.57	92	42.2

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-15\2016-04-15_001.xad

Created: 4/15/2016 3:48:57 PM
 Modified: 4/15/2016 4:28:43 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : BMAIN pig_Mcyp

Number of peaks found: 6 Corr. Area 1: 644.8
 Noise: 0.2

Peak table for sample 9 : BMAIN pig_Mcyp

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	241	573.63	3,611.1		63.19
3	259	306.25	1,793.7		64.79
4	274	219.80	1,217.6		66.10
5	283	201.88	1,082.7		66.90
6	348	102.89	447.7		72.42
7	432	49.48	173.7		78.52
8	10,380	75.00	10.9	Upper Marker	113.00

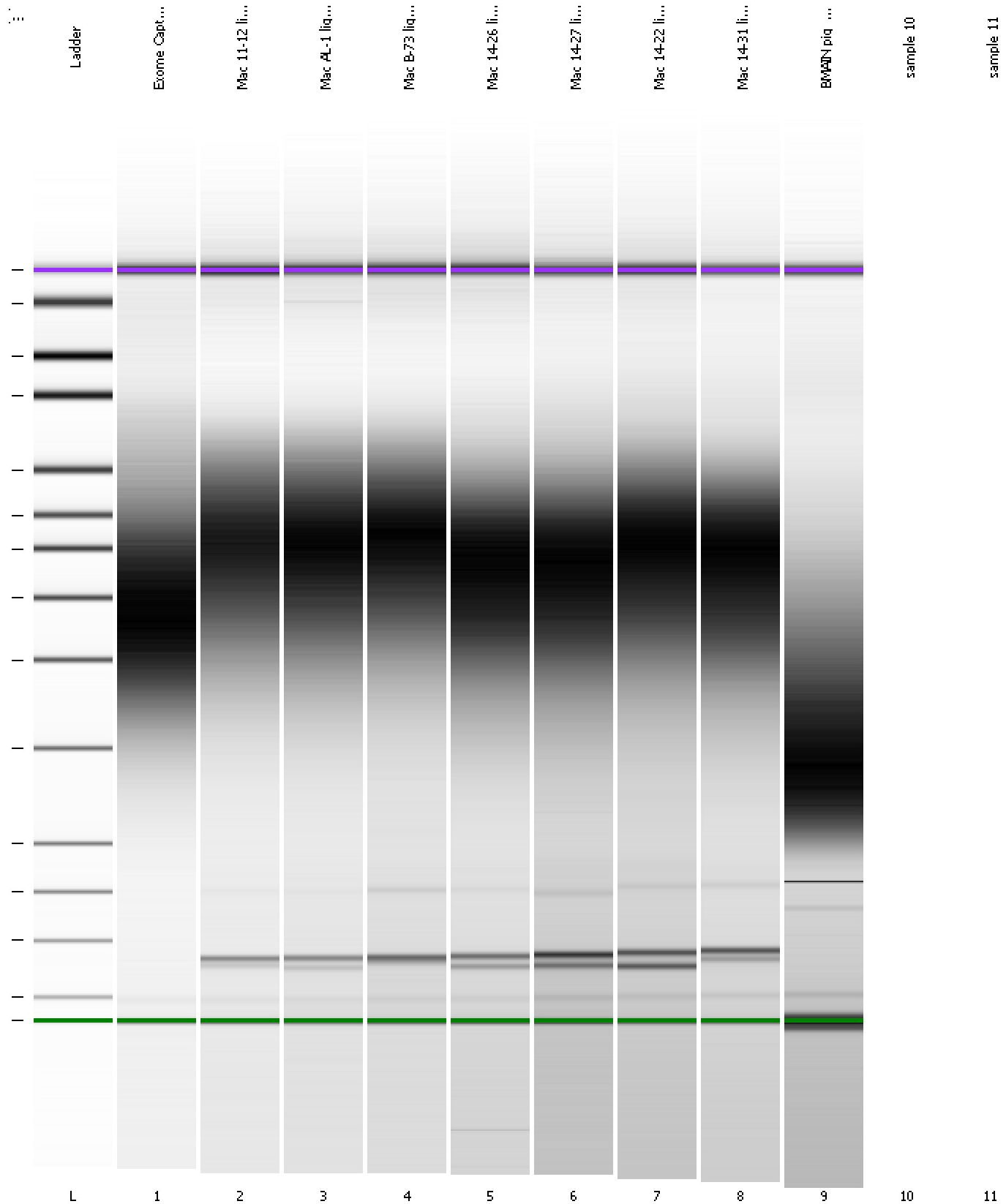
Region table for sample 9 : BMAIN pig_Mcyp

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
170	1,000	348	644.8	17,249.1	3,519.61	97	32.2

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-15\2016-04-15_001.xad

Created: 4/15/2016 3:48:57 PM
Modified: 4/15/2016 4:28:43 PM

Gel Image

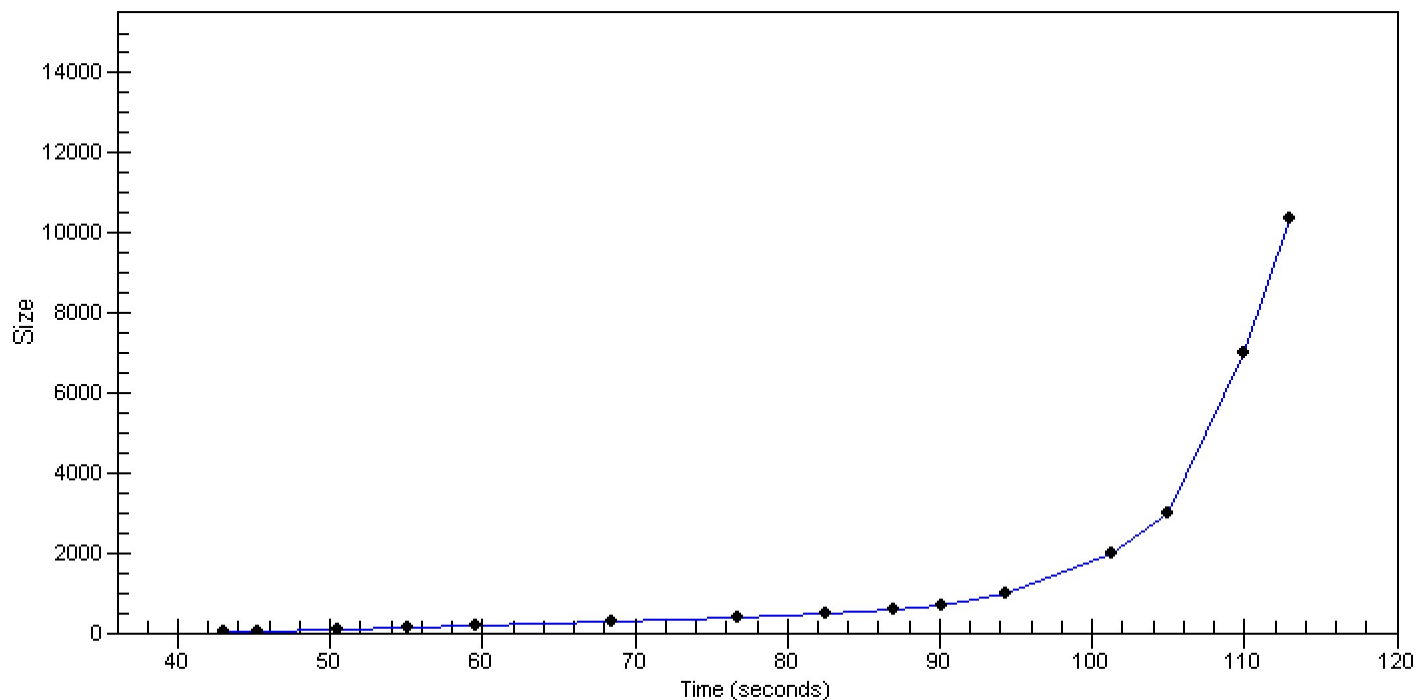


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-15\2016-04-15_001.xad

Created: 4/15/2016 3:48:57 PM
Modified: 4/15/2016 4:28:43 PM

Curves

Standard Curve



Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-15\2016-04-15_001.xad

Created: 4/15/2016 3:48:57 PM
Modified: 4/15/2016 4:28:43 PM

Invalid Samples

Sample 10 has not been run, no results available.

Sample 11 has not been run, no results available.

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-15\2016-04-15_001.xad

Created: 4/15/2016 3:48:57 PM
 Modified: 4/15/2016 4:28:43 PM

Run Logbook

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 10)		Instrument	Run		4/15/2016 4:24:31 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\2016-04-15\2016-04-15_001.xad)		Instrument	Run		4/15/2016 3:49:03 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		4/15/2016 3:49:03 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		4/15/2016 3:49:03 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		4/15/2016 3:49:03 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		4/15/2016 3:49:03 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		4/15/2016 3:49:03 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		4/15/2016 3:49:03 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1