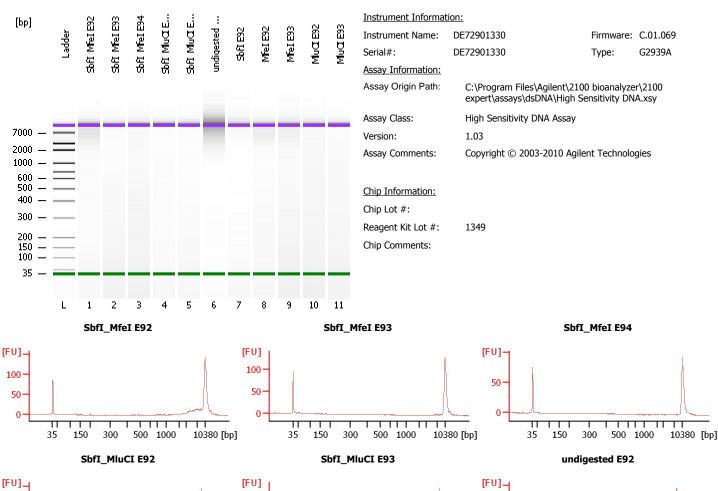
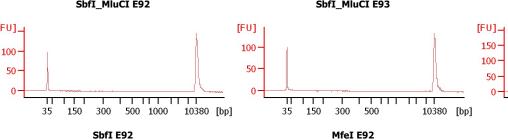
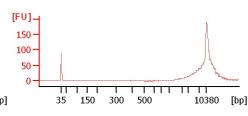
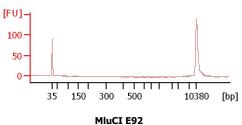
Assay Class: High Sensitivity DNA Assay Created: 4/7/2014 12:21:20 PM Data Path: C:\...gh Sensitivity DNA Assay_DE72901330_2014-04-07_12-21-21.xad Created: 4/7/2014 12:21:20 PM Modified: 4/7/2014 12:28:17 PM

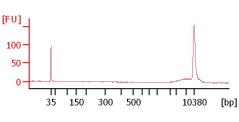
Electrophoresis File Run Summary

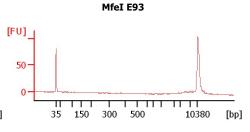


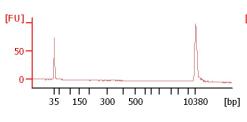


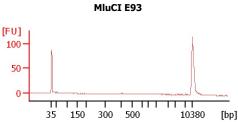












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Assay Class: High Sensitivity DNA Assay C:\...gh Sensitivity DNA Assay_DE72901330_2014-04-07_12-21-21.xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-04-07_12-21-21.xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-04-07_12-21-21.xad Modified: 4/7/2014 2:28:17 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Statu Observation s	Result Label Result Color
SbfI_MfeI E92		Ż	✓	
SbfI_MfeI E93		$ \overline{\mathbf{Z}} $	✓	
SbfI_MfeI E94		$\overline{\mathbf{Z}}$	✓	
SbfI_MluCI E92		7	✓	
SbfI_MluCI E93		$\overline{\mathbf{Z}}$	✓	
undigested E92			✓	
SbfI E92		$\overline{\mathbf{Z}}$	✓	
MfeI E92		\overline{Z}	✓	
MfeI E93		\overline{Z}	✓	
MluCI E92		$\overline{\mathbf{Z}}$	✓	
MluCI E93		\overline{Z}	✓	
Ladder			~	
Chip Lot #				Reagent Kit Lot #
				1349

Chip Comments:

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Assay Class: High Sensitivity DNA Assay

4/7/2014 12:21:20 PM Created: C:\...gh Sensitivity DNA Assay_DE72901330_2014-04-07_12-21-21.xad 4/7/2014 2:28:17 PM Data Path: Modified:

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

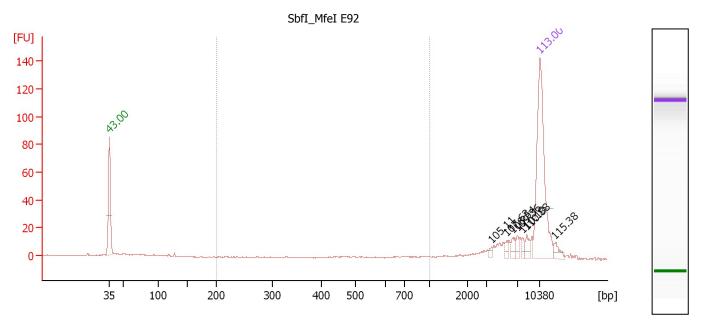
Filter Settings

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

Electropherogram Summary



Overall Results for sample 1: SbfI_MfeI E92

Number of peaks found: 7 Corr. Area 1: 7.7

Noise: 0.3

Peak t	able	for sample 1:	SbfI MfeI E92				
Peak		Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations		
1	•	35	125.00	5,411.3	Lower Marker		
2		3,655	1.73	0.7			
3		5,639	2.72	0.7			
4		6,357	4.40	1.0			
5		7,009	3.44	0.7			
6		7,691	3.11	0.6			
7		8,413	4.91	0.9			
8		10,380	75.00	10.9	Upper Marker		
9		12,587	0.00	0.0			

Region table for sample 1: SbfI MfeI E92

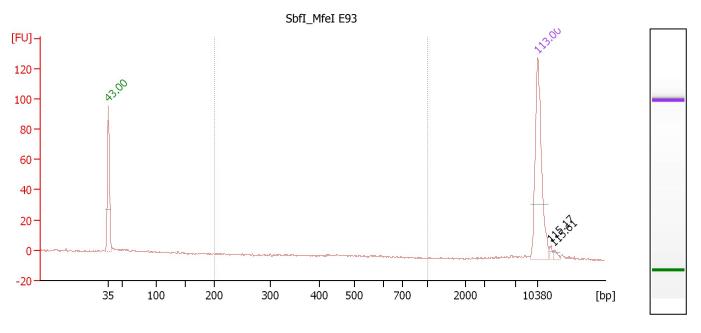
From [bp]	To [bp] Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]		Molarity [pmol/l]	Co lor
200	1.000 7.7	5	692	25.6	4.05	9.8	

Assay Class:

High Sensitivity DNA Assay C:\...gh Sensitivity DNA Assay_DE72901330_2014-04-07_12-21-21.xad Data Path:

Created: Modified: 4/7/2014 12:21:20 PM 4/7/2014 2:28:17 PM

Electropherogram Summary Continued ...



Overall Results for sample 2: SbfI_MfeI E93

Number of peaks found: 2

2.8 Corr. Area 1:

Noise: 0.4

Peak table for sample 2	:	SbfI	MfeI E93

Peak		Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	4	35	125.00	5,411.3	Lower Marker
2		10,380	75.00	10.9	Upper Marker
3		12,392	0.00	0.0	
4		12.794	0.00	0.0	

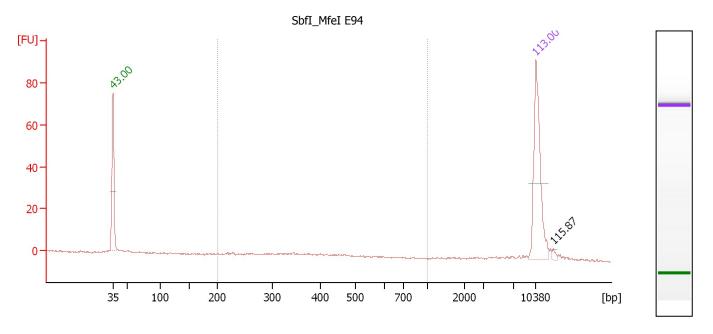
Region table for sample 2: SbfI_MfeI E93

From [bp]	To [bp] Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]		Molarity [pmol/l]	Co lor
200	1.000 2.8	6	486	17.5	1.96	6.5	

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Assay Class: High Sensitivity DNA Assay C:\...gh Sensitivity DNA Assay_DE72901330_2014-04-07_12-21-21.xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-04-07_12-21-21.xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-04-07_12-21-21.xad Modified: 4/7/2014 2:28:17 PM

Electropherogram Summary Continued ...



Overall Results for sample 3: SbfI MfeI E94

Number of peaks found: 1 Corr. Area 1: 15.0

Noise: 0.3

Peak table for sample 3: <u>SbfI MfeI E94</u>

Peak		Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	4	35	125.00	5,411.3	Lower Marker
2		10,380	75.00	10.9	Upper Marker
3		13 035	0.00	0.0	

Region table for sample 3: SbfI MfeI E94

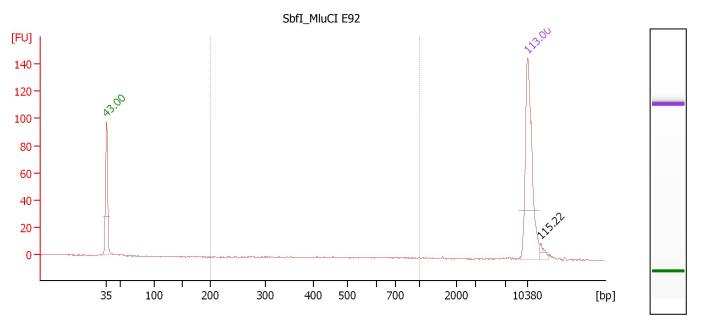
From [bp]	To [bp] Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]		Molarity [pmol/l]	Co lor
200	1,000	15.0	38	371	23.0	15.92	70.1	

Assay Class:

High Sensitivity DNA Assay C:\...gh Sensitivity DNA Assay_DE72901330_2014-04-07_12-21-21.xad Data Path:

Created: Modified: 4/7/2014 12:21:20 PM 4/7/2014 2:28:17 PM

Electropherogram Summary Continued ...



Overall Results for sample 4: SbfI_MluCI E92

Number of peaks found: 7.6 1 Corr. Area 1:

Noise: 0.3

Peak table for sample 4: SbfI_MluCI E92

Peak		Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	4	35	125.00	5,411.3	Lower Marker
2		10,380	75.00	10.9	Upper Marker
2		12 /21	0.00	0.0	

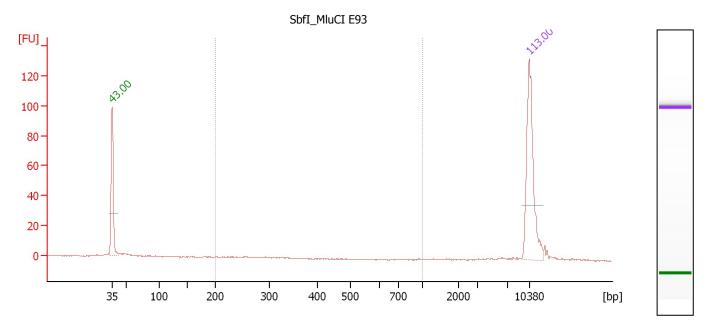
Region table for sample 4: SbfI_MluCI E92

From [bp]	To [bp] Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/µl]	Molarity [pmol/l]	Co lor
200	1,000 7.6	19	623	28.8	4.39	12.1	

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Assay Class: High Sensitivity DNA Assay Created: 4/7/2014 12:21:20 PM Data Path: C:\...gh Sensitivity DNA Assay_DE72901330_2014-04-07_12-21-21.xad Created: 4/7/2014 12:21:20 PM Modified: 4/7/2014 2:28:17 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : SbfI_MluCI E93

Number of peaks found: 0 Corr. Area 1: 2.2

Noise: 0.3

Peak table for sample 5 : <u>SbfI MluCI E93</u>

 Peak
 Size [bp]
 Conc. [pg/μl]
 Molarity [pmol/l]
 Observations

 1
 ◀
 35
 125.00
 5,411.3
 Lower Marker

 2
 ▶
 10,380
 75.00
 10.9
 Upper Marker

Region table for sample 5 : <u>SbfI MluCI E93</u>

From To [bp] Corr. % of **Average Size** Size distribution in Conc. Molarity Co **Total** [bp] Area [bp] CV [%] [pg/µl] [pmol/l] lor 200 2.2 288 45.9 1,000 6 1.75 10.0

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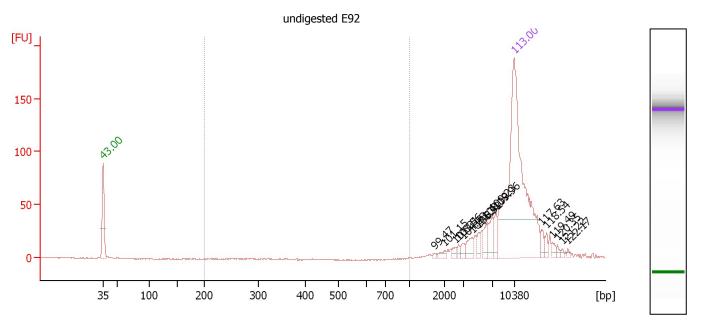
Assay Class:

High Sensitivity DNA Assay C:\...gh Sensitivity DNA Assay_DE72901330_2014-04-07_12-21-21.xad Data Path:

Created: Modified:

4/7/2014 12:21:20 PM 4/7/2014 2:28:17 PM

Electropherogram Summary Continued ...



Overall Results for sample 6: undigested E92

Number of peaks found: 0.0 16 Corr. Area 1:

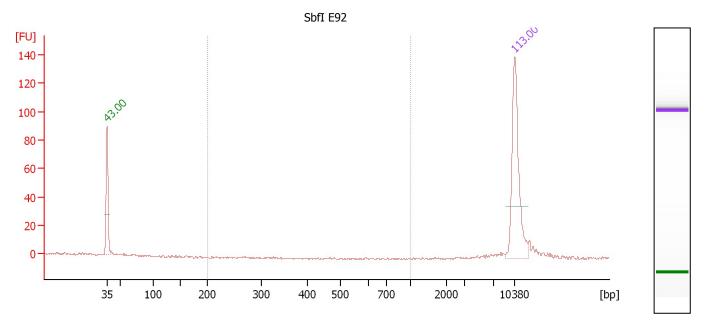
Noise: 0.3

Peak table for sample 6:			for sample 6:	undigested E92		
	Peak		Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
	1	4	35	125.00	5,411.3	Lower Marker
	2		1,718	0.60	0.5	
	3		1,994	1.46	1.1	
	4		2,590	1.33	0.8	
	5		2,766	1.06	0.6	
	6		3,001	1.67	0.8	
	7		4,220	3.54	1.3	
	8		5,080	2.06	0.6	
	9		6,083	3.65	0.9	
	10		6,907	5.34	1.2	
	11		7,564	3.75	0.8	
	12		10,380	75.00	10.9	Upper Marker
	13		14,667	0.00	0.0	
	14		15,508	0.00	0.0	
	15		16,391	0.00	0.0	
	16		17,190	0.00	0.0	
	17		17,988	0.00	0.0	
	18		18,871	0.00	0.0	
	Donion		la fau cample 6	dimastad EO	,	

Region table for sample 6: undigested E92

From	To [bp] Corr.	_		Size distribution in		Molarity	Co
[bp]		Area	Total	[bp]	CV [%]	[pg/µl]	[pmol/l]	lor
200	1,000	0.0	0	0	0.0	0.00	0.0	

Electropherogram Summary Continued ...



Overall Results for sample 7: SbfI E92

Number of peaks found: 0 Corr. Area 1: 0.0

Noise: 0.5

Peak table for sample 7: SbfI E92

 Peak
 Size [bp]
 Conc. [pg/μl]
 Molarity [pmol/l]
 Observations

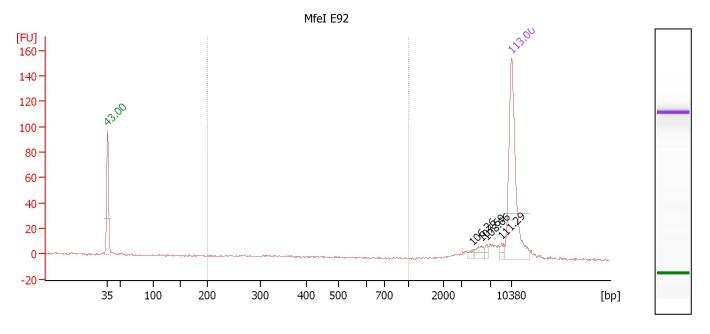
 1
 4
 35
 125.00
 5,411.3
 Lower Marker

 2
 10,380
 75.00
 10.9
 Upper Marker

Region table for sample 7: <u>SbfI E92</u>

From To [bp] Corr. % of **Average Size** Size distribution in Conc. Molarity Co **Total** [bp] Area [bp] CV [%] [pg/µl] [pmol/l] lor 200 0.0 0 0.0 0.00 0.0 1,000 0

Electropherogram Summary Continued ...



Overall Results for sample 8: MfeI E92

Number of peaks found: 4 Corr. Area 1: 4.0

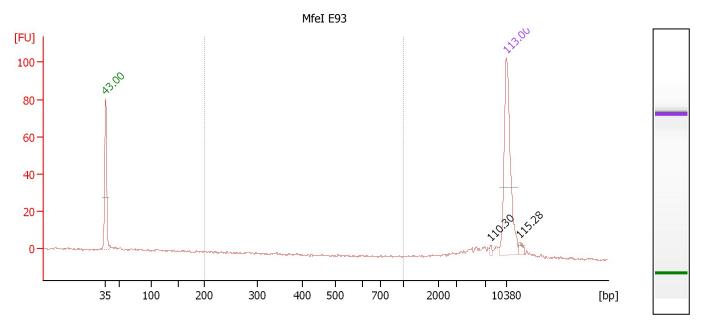
Noise: 0.3

Peak	tab	le for sample	e 8: <u>MfeI E92</u>	<u>2</u>	
Peak		Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	4	35	125.00	5,411.3	Lower Marker
2		4,564	2.49	0.8	
3		5,693	5.89	1.6	Possible Co-Migration of 2 Peaks
4		6,458	2.73	0.6	
5		8,799	3.16	0.5	
6		10,380	75.00	10.9	Upper Marker

Region table for sample 8: MfeI E92

From	To [bp]] Corr.	% of	Average Size	Size distribution in	Conc.	Molarity	Co
[bp]		Area	Total	[bp]	CV [%]	[pg/µl]	[pmol/l]	lor
200	1,000	4.0	4	385	39.4	2.31	10.5	

Electropherogram Summary Continued ...



Overall Results for sample 9: MfeI E93

Number of peaks found: 2 Corr. Area 1: 1.6

Noise: 0.4

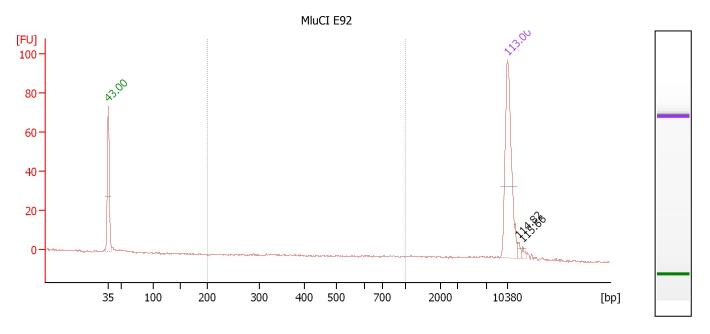
Peak table for sample 9:				<u>MfeI E93</u>		
	Peak		Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
	1	•	35	125.00	5,411.3	Lower Marker
	2		7,879	1.51	0.3	
	3		10,380	75.00	10.9	Upper Marker
	4		12 493	0.00	0.0	

Region table for sample 9: MfeI E93

From [bp]	To [bp] Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]		Molarity [pmol/l]	Co lor
200	1.000 1.6	2	267	31.0	1.66	10.0	

Assay Class: High Sensitivity DNA Assay C:\...gh Sensitivity DNA Assay_DE72901330_2014-04-07_12-21-21.xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-04-07_12-21-21.xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-04-07_12-21-21.xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-04-07_12-21-21.xad Modified: 4/7/2014 12:21:20 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : MluCI E92

Number of peaks found: 2 Corr. Area 1: 4.6

Noise: 0.3

Peak table for sample 10 : <u>MluCI E92</u>

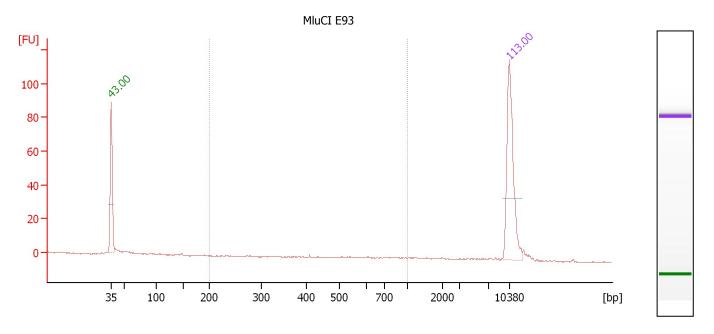
Peak		Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	4	35	125.00	5,411.3	Lower Marker
2		10,380	75.00	10.9	Upper Marker
3		12,066	0.00	0.0	
4		12,845	0.00	0.0	

Region table for sample 10 : MluCI E92

From	To [bp] Corr.	% of	Average Size	Size distribution in CV [%]	Conc.	Molarity	Co
[bp]	Area	Total	[bp]		[pg/µl]	[pmol/l]	lor
200	1 000 4 6	11	724	23.1	3 86	8.8	

Assay Class: High Sensitivity DNA Assay Created: 4/7/2014 12:21:20 PM Data Path: C:\...gh Sensitivity DNA Assay_DE72901330_2014-04-07_12-21-21.xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-04-07_12-21-21.xad Modified: 4/7/2014 2:28:17 PM

Electropherogram Summary Continued ...



Overall Results for sample 11: MluCI E93

Number of peaks found: 0 Corr. Area 1: 5.3

Noise: 0.2

Peak table for sample 11 : MluCI E93

 Peak
 Size [bp]
 Conc. [pg/μl]
 Molarity [pmol/l]
 Observations

 1
 ◀
 35
 125.00
 5,411.3
 Lower Marker

 2
 ▶
 10,380
 75.00
 10.9
 Upper Marker

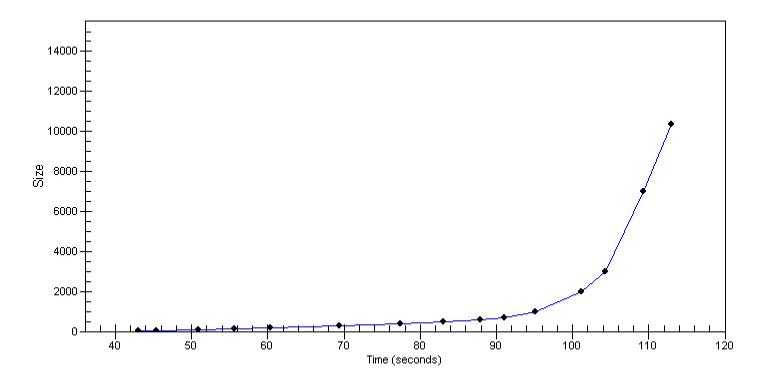
Region table for sample 11: MluCI E93

From To [bp] Corr. % of **Average Size** Size distribution in Conc. Molarity Co **Total** [bp] Area [bp] CV [%] [pg/µl] [pmol/l] lor 200 5.3 15 25.4 3.80 9.4 1,000 678

High Sensitivity DNA Assay C:\...gh Sensitivity DNA Assay_DE72901330_2014-04-07_12-21-21.xad 4/7/2014 12:21:20 PM 4/7/2014 2:28:17 PM Assay Class: Created: Modified: Data Path: **Gel Image** Shi Mei E92 Shi Mei E93 SbfI MfeI E94 Shft Mude... undigested ... [bp] SBR Mude. MeI E93 Mud E92 Mud E93 Sbft E92 Ladder 10380 -7000 — 3000 — 2000 — 1000 -700 — 600 — 500 — 400 - -300 — — 200 — 150 - = 100 — 50 -35 — I L 1 2 3 5 6 7 8 9 10 11

Curves

Standard Curve



Run Logbook

Description Run ended on port 1 (Number of wells acquired: 12)	Number	Source Instrument	Category Run	Sub Category	Time 4/7/2014 1:02:43 PM	Time Zone (GMT04:00) Eastern Standard Time	User foran103	Host RUTGERS-4341 E48
Run started on port 1 (File: C:\Program Files\Agilent\21 00 bioanalyzer\210 0 expert\Data\201 4-04-07\Pinsky_High Sensitivity DNA Assay_DE72901 330_2014-04-07_12-21-21.xad)		Instrument	Run		4/7/2014 12:21:28 PM	(GMT04:00) Eastern Standard Time	foran103	RUTGERS-4341 E48
Product Number : G2939A		Instrument	Run		4/7/2014 12:21:28 PM	(GMT04:00) Eastern Standard Time	foran103	RUTGERS-4341 E48
Name :		Instrument	Run		4/7/2014 12:21:28 PM	(GMT04:00) Eastern Standard Time	foran103	RUTGERS-4341 E48
Vendor : Agilent Technologies		Instrument	Run		4/7/2014 12:21:28 PM	(GMT04:00) Eastern Standard Time	foran103	RUTGERS-4341 E48
Serial# : DE72901330		Instrument	Run		4/7/2014 12:21:28 PM	(GMT04:00) Eastern Standard Time	foran103	RUTGERS-4341 E48
Firmware : C.01.069		Instrument	Run		4/7/2014 12:21:28 PM	(GMT04:00) Eastern Standard Time	foran103	RUTGERS-4341 E48
Cartridge : Electrode		Instrument	Run		4/7/2014 12:21:28 PM	(GMT04:00) Eastern Standard Time	foran103	RUTGERS-4341 E48