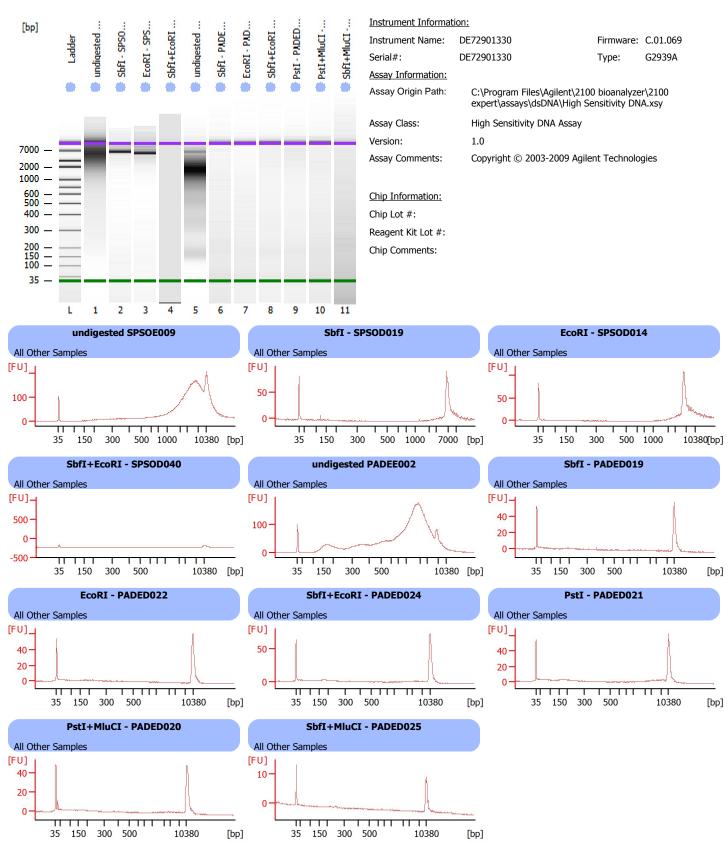
Assay Class: High Sensitivity DNA Assay Created: 3/10/2014 3:02:29 PM Data Path: C:\...r flounder Pinsky_High Sensitivity DNA Assay_DE72901330.xad Created: 3/10/2014 3:02:29 PM Modified: 4/8/2014 2:46:19 PM

Electrophoresis File Run Summary



Page 2 of 20

Assay Class: High Sensitivity DNA Assay C:\...r flounder Pinsky_High Sensitivity DNA Assay_DE72901330.xad Created: 3/10/2014 3:02:29 PM Modified: 4/8/2014 2:46:19 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Statu Observation s	Result Label	Result Color
undigested SPSOE009			✓	All Other	
		_		Samples	
SbfI - SPSOD019		\checkmark	~	All Other	
				Samples	
EcoRI - SPSOD014		$\overline{\mathbf{Z}}$	~	All Other	
		_		Samples	
SbfI+EcoRI - SPSOD040)	$ lap{\hspace{0.1cm}}$	~	All Other	
		_		Samples	
undigested PADEE002			~	All Other	
		_		Samples	
SbfI - PADED019		ightharpoons	~	All Other	
				Samples	
EcoRI - PADED022		\checkmark	~	All Other	
		_		Samples	
SbfI+EcoRI - PADED024	1		~	All Other	
		_		Samples	
PstI - PADED021			~	All Other	
		_		Samples	
PstI+MluCI - PADED020		\checkmark	~	All Other	
		_		Samples	
SbfI+MluCI - PADED025	5	\checkmark	~	All Other	
		_		Samples	
Ladder			~	All Other	
				Samples	

Chip Lot # Reagent Kit Lot #

Chip Comments:

Page 3 of 20

Assay Class: High Sensitivity DNA Assay Created: 3/10/2014 3:02:29 PM Data Path: C:\...r flounder Pinsky_High Sensitivity DNA Assay_DE72901330.xad Created: 3/10/2014 3:02:29 PM Modified: 4/8/2014 2:46:19 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

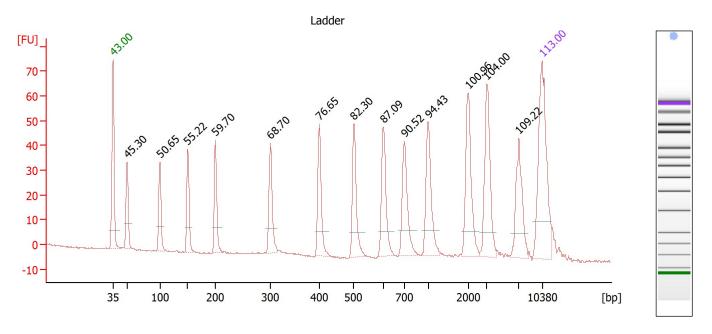
Filter Width [s]: 0.5 Polynomial Order: 4

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

High Sensitivity DNA Assay C:\...r flounder Pinsky_High Sensitivity DNA Assay_DE72901330.xad 3/10/2014 3:02:29 PM 4/8/2014 2:46:19 PM Assay Class: Created: Modified: Data Path:

Electropherogram Summary



Overall Results for Ladder

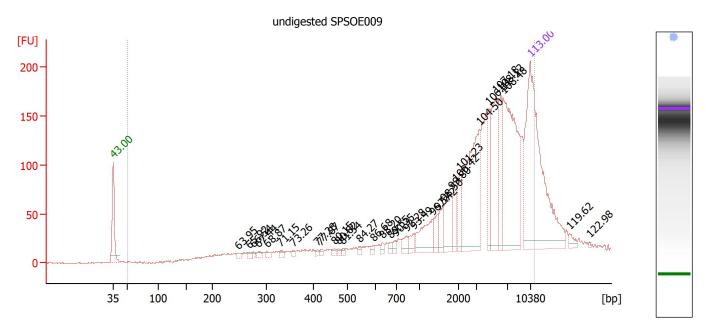
0.3 Noise: Result Flagging Label: All Other Samples Result Flagging Color:

Peak ta	ble for	Ladder
---------	---------	--------

Peak		Size [bp]	Conc. [pg/µl]	Molarity [pmol/I]	Observations
1	4	35	125.00	5,411.3	Lower Marker
2		50	150.00	4,545.5	Ladder Peak
3		100	150.00	2,272.7	Ladder Peak
4		150	150.00	1,515.2	Ladder Peak
5		200	150.00	1,136.4	Ladder Peak
6		300	150.00	757.6	Ladder Peak
7		400	150.00	568.2	Ladder Peak
8		500	150.00	454.5	Ladder Peak
9		600	150.00	378.8	Ladder Peak
10		700	150.00	324.7	Ladder Peak
11		1,000	150.00	227.3	Ladder Peak
12		2,000	150.00	113.6	Ladder Peak
13		3,000	150.00	75.8	Ladder Peak
14		7,000	150.00	32.5	Ladder Peak
15		10,380	75.00	10.9	Upper Marker

High Sensitivity DNA Assay C:\...r flounder Pinsky_High Sensitivity DNA Assay_DE72901330.xad 3/10/2014 3:02:29 PM 4/8/2014 2:46:19 PM Assay Class: Created: Modified: Data Path:

Electropherogram Summary Continued ...



Overall Results for sample 1: undigested SPSOE009

0.3

32 Result Flagging Label: Number of peaks found: All Other Samples Corr. Area 1: 1,915.9

Result Flagging Color:

Noise:

Peak table	for sample 1:	undigested SPSOE009		
Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/I]	Observations
1	35	125.00	5,411.3	Lower Marker
2	247	1.61	9.9	
3	269	1.47	8.3	
4	276	1.15	6.3	
5	286	1.92	10.2	
6	302	1.72	8.6	
7	331	1.61	7.4	
8	357	1.07	4.5	
9	411	1.12	4.1	
10	421	1.14	4.1	
11	462	1.57	5.1	
12	474	1.05	3.4	
13	486	1.06	3.3	
14	541	1.30	3.6	
15	592	1.15	3.0	
16	633	1.37	3.3	
17	672	1.59	3.6	
18	695	1.99	4.3	
19	835	3.75	6.8	
20	927	3.62	5.9	
21	1,328	13.15	15.0	
22	1,458	5.57	5.8	
23	1,623	5.92	5.5	
24	1,822	11.49	9.6	
25	1,918	7.42	5.9	

Page 6 of 20

Assay Class: High Sensitivity DNA Assay C:\...r flounder Pinsky_High Sensitivity DNA Assay_DE72901330.xad Created: 3/10/2014 3:02:29 PM Modified: 4/8/2014 2:46:19 PM

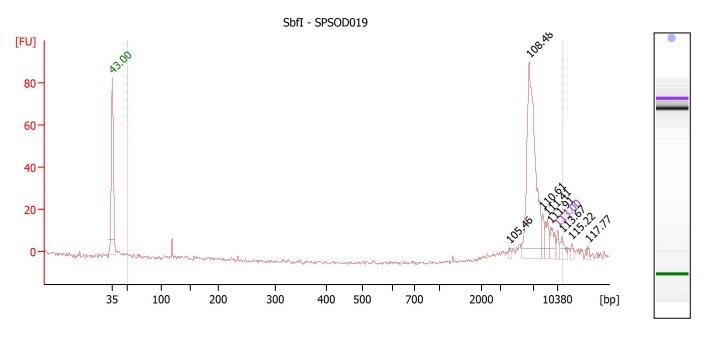
Electropherogram Summary Continued ...

Peak table for sample 1 : <u>undigested SPSOE009</u>				
Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
26	2,089	7.38	5.3	
27	3,380	45.88	20.6	
28	4,616	11.81	3.9	
29	5,439	25.71	7.2	
30	6,160	16.53	4.1	
31	6,434	57.19	13.5	
32	10,380	75.00	10.9	Upper Marker
33	16,299	0.00	0.0	
34	19,298	0.00	0.0	

Region table for sample 1: <u>undigested SPSOE009</u>

From	To [bp] Corr.	% of		Size distribution in		Molarity	Co
[bp]	Area	Total	[bp]	CV [%]	[pg/µl]	[pmol/l]	lor
50	11,000 1,915.9	98	4,957	64.4	297.03	335.9	

Electropherogram Summary Continued ...



Overall Results for sample 2: SbfI - SPSOD019

Number of peaks found: 8 Result Flagging Label: All Other Samples

Noise: 0.7 Corr. Area 1: 175.2

Result Flagging Color:

Peak table for sample 2:	SbfI - SPSOD019
--------------------------	-----------------

Peak		Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	4	35	125.00	5,411.3	Lower Marker
2		4,122	31.38	11.5	
3		6,433	1,955.36	460.5	
4		8,248	135.01	24.8	
5		8,958	161.94	27.4	
6		9,407	149.46	24.1	
7		10,380	75.00	10.9	Upper Marker
8		10,979	0.00	0.0	
9		12,363	0.00	0.0	
10		14,645	0.00	0.0	

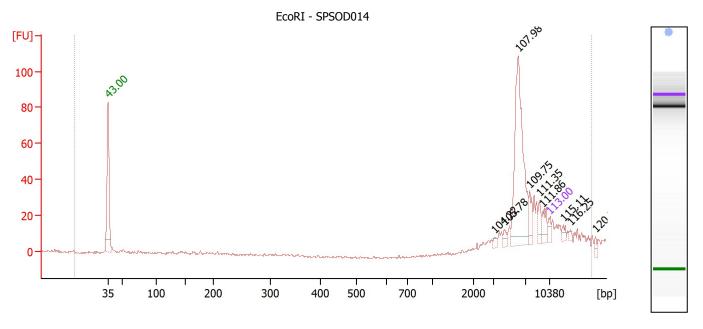
Region table for sample 2 : <u>SbfI - SPSOD019</u>

From [bp]	To [bp] Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]		Molarity [pmol/l]	Co lor
50	11.000 175.2	91	7.131	20.5	2.508.11	1.392.0	

Page 8 of 20

Assay Class: High Sensitivity DNA Assay C:\...r flounder Pinsky_High Sensitivity DNA Assay_DE72901330.xad Created: 3/10/2014 3:02:29 PM Modified: 4/8/2014 2:46:19 PM

Electropherogram Summary Continued ...



Overall Results for sample 3: <u>EcoRI - SPSOD014</u>

Number of peaks found: 9 Result Flagging Label: All Other Samples

Noise: 0.5 Corr. Area 1: 249.6

Result Flagging Color:

Peak table for sample 3:	EcoRI - SPSOD014
--------------------------	------------------

Peak		Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	4	35	125.00	5,411.3	Lower Marker
2		3,167	45.06	21.6	
3		4,365	68.84	23.9	
4		6,048	1,962.83	491.7	
5		7,475	206.50	41.9	
6		8,909	138.39	23.5	
7		9,361	182.87	29.6	
8		10,380	75.00	10.9	Upper Marker
9		12,266	0.00	0.0	
10		13,285	0.00	0.0	
11		16,869	0.00	0.0	

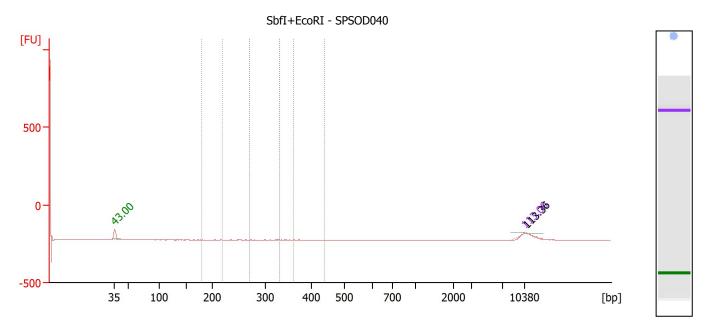
Region table for sample 3 : <u>EcoRI - SPSOD014</u>

From [bp]	To [bp] Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/µl]	Molarity [pmol/l]	Co lor
0	16,237 249.6	98	6,658	48.5	3,148.29	2,057.9	

Page 9 of 20

Assay Class: High Sensitivity DNA Assay C:\...r flounder Pinsky_High Sensitivity DNA Assay_DE72901330.xad Created: 3/10/2014 3:02:29 PM Modified: 4/8/2014 2:46:19 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : <u>SbfI+EcoRI - SPSOD040</u>

Number of peaks found:1Corr. Area 1:3.3Noise:0.6Corr. Area 2:5.8Result Flagging Color:Corr. Area 3:4.9

Result Flagging Label: All Other Samples

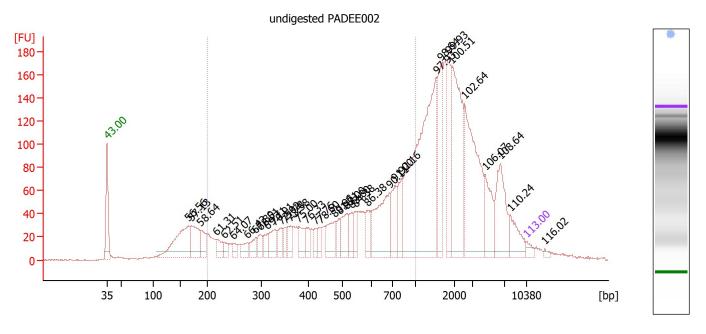
Peak table for sample 4 : <u>SbfI+EcoRI - SPSOD040</u>

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		10 704	0.00	0.0	

Region table for sample 4: <u>SbfI+EcoRI - SPSOD040</u>

From [bp]	To [b _l	p] Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/µl]	Molarity [pmol/l]	Co lor
180	220	3.3	2	200	6.1	96.73	736.3	
270	330	5.8	3	300	6.1	148.57	753.1	
360	440	4.9	3	389	5.7	115.09	449.5	

Electropherogram Summary Continued ...



Overall Results for sample 5 : <u>undigested PADEE002</u>

Number of peaks found: 36 Result Flagging Label: All Other Samples

Noise: 0.5 Corr. Area 1: 1,503.3

Result Flagging Color:

Peak ta	able	for sample 5:	undigested PADI	E002	
Peak		Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	4	35	125.00	5,411.3	Lower Marker
2		165	1,375.08	12,631.6	
3		171	759.18	6,711.4	
4		188	351.91	2,832.2	
5		218	248.21	1,725.5	
6		231	145.81	955.2	
7		249	145.48	886.8	
8		275	213.39	1,176.8	
9		290	237.21	1,239.1	
10		298	215.67	1,096.7	
11		313	195.00	944.7	
12		328	342.31	1,582.0	
13		342	220.04	975.4	
14		351	161.53	696.6	
15		361	250.35	1,049.7	
16		379	311.35	1,243.9	
17		396	196.69	752.6	
18		420	136.02	491.2	
19		434	181.65	633.5	
20		476	437.49	1,392.2	
21		490	179.63	556.0	
22		515	430.92	1,268.9	
23		531	272.81	778.0	
24		543	203.09	566.3	
25		585	276.92	717.0	

Page 11 of 20

Assay Class: High Sensitivity DNA Assay C:\...r flounder Pinsky_High Sensitivity DNA Assay_DE72901330.xad Created: 3/10/2014 3:02:29 PM Modified: 4/8/2014 2:46:19 PM

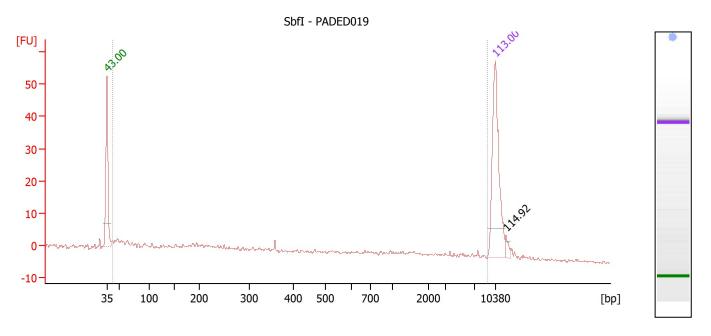
Electropherogram Summary Continued ...

Peak	. Peak table for sample 5 : <u>undigested PADEE002</u>								
Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations					
26	688	1,132.10	2,493.0						
27	737	458.14	942.3						
28	825	411.78	756.0						
29	1,536	3,527.91	3,479.0						
30	1,645	865.57	797.0						
31	1,843	739.05	607.5						
32	1,932	1,635.35	1,282.7						
33	2,555	1,730.51	1,026.4						
34	4,584	520.61	172.1						
35	6,561	758.55	175.2						
36	7,918	334.83	64.1						
37	10,380	75.00	10.9	Upper Marker					
38	13,081	0.00	0.0						

Region table for sample 5 : <u>undigested PADEE002</u>

From	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	1,503.3	40	555	39.0	10,524.84	37,362.8	

Electropherogram Summary Continued ...



Overall Results for sample 6: SbfI - PADED019

Number of peaks found: 1 Result Flagging Label: All Other Samples

Noise: 0.4 Corr. Area 1: 79.2

Result Flagging Color:

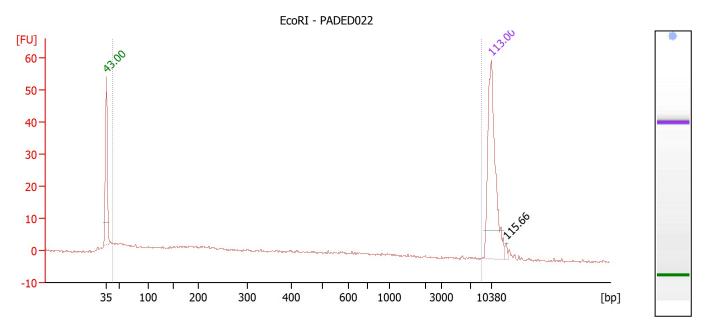
Peak table for sample 6: SbfI - PADED019

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		12,096	0.00	0.0	

Region table for sample 6 : SbfI - PADED019

From [bp]	To [bp] Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]		Molarity [pmol/l]	Co lor
41	9.165 79.2	85	1.254	100.0	128.78	1.415.0	

Electropherogram Summary Continued ...



Overall Results for sample 7: <u>EcoRI - PADED022</u>

Number of peaks found: 1 Result Flagging Label: All Other Samples

Noise: 0.3 Corr. Area 1: 123.9

Result Flagging Color:

Peak table for sample 7: <u>EcoRI - PADED022</u>

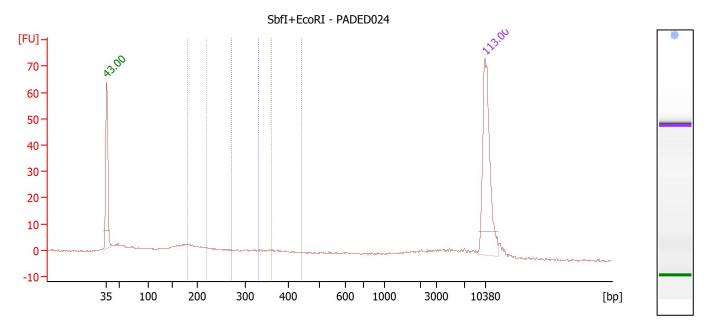
Peak		Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	4	35	125.00	5,411.3	Lower Marker
2		10,380	75.00	10.9	Upper Marker
2		12 761	0.00	0.0	

Region table for sample 7: <u>EcoRI - PADED022</u>

From [bp]	To [bp] Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]		Molarity [pmol/l]	Co lor
42	8 812 123 9	90	461	100 0	183 97	2 129 7	

Assay Class: High Sensitivity DNA Assay Created: 3/10/2014 3:02:29 PM Data Path: C:\...r flounder Pinsky_High Sensitivity DNA Assay_DE72901330.xad Created: 3/10/2014 3:02:29 PM Modified: 4/8/2014 2:46:19 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : <u>SbfI+EcoRI - PADED024</u>

Number of peaks found:0Corr. Area 1:15.1Noise:0.2Corr. Area 2:9.4Result Flagging Color:Corr. Area 3:8.6

Result Flagging Label: All Other Samples

Peak table for sample 8 : <u>SbfI+EcoRI - PADED024</u>

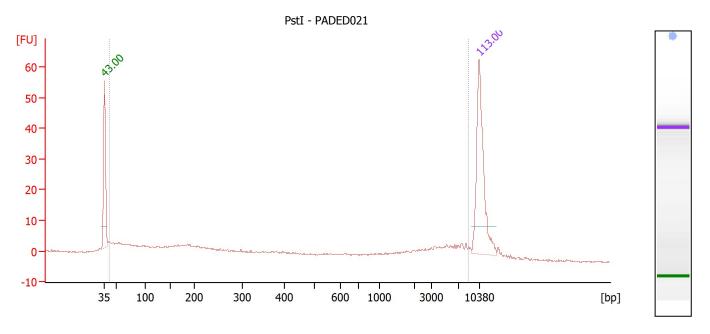
Peak		Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	4	35	125.00	5,411.3	Lower Marker
2		10,380	75.00	10.9	Upper Marker

Region table for sample 8 : <u>SbfI+EcoRI - PADED024</u>

From [bp]	To [b	p] Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/µl]	Molarity [pmol/l]	Co lor	
180	220	15.1	9	198	5.9	19.40	149.4		
270	330	9.4	6	299	6.0	10.74	54.6		
360	440	8.6	5	393	5.8	8.81	34.1		

Assay Class: High Sensitivity DNA Assay Created: 3/10/2014 3:02:29 PM Data Path: C:\...r flounder Pinsky_High Sensitivity DNA Assay_DE72901330.xad Created: 4/8/2014 2:46:19 PM

Electropherogram Summary Continued ...



Overall Results for sample 9: PstI - PADED021

Number of peaks found: 0 Result Flagging Label: All Other Samples

Noise: 0.2 Corr. Area 1: 187.3

Result Flagging Color:

Peak table for sample 9: PstI - PADED021

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

 1

 ◆
 35
 125.00
 5,411.3
 Lower Marker

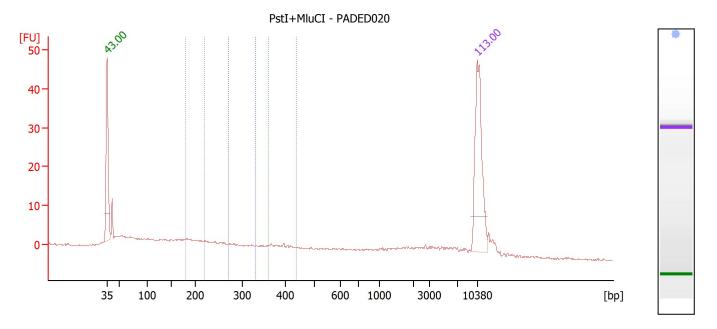
 2

 ▶
 10,380
 75.00
 10.9
 Upper Marker

Region table for sample 9: PstI - PADED021

From To [bp] Corr. % of Average Size Size distribution in Molarity Co Conc. **Total** CV [%] [pmol/l] [bp] Area [bp] [pg/µl] lor 41 8,662 187.3 90 1,742 100.0 270.92 2,912.8

Electropherogram Summary Continued ...



Overall Results for sample 10 : PstI+MluCI - PADED020

Number of peaks found:0Corr. Area 1:12.6Noise:0.2Corr. Area 2:9.0Result Flagging Color:Corr. Area 3:9.1

Result Flagging Label: All Other Samples

Peak table for sample 10 : <u>PstI+MluCI - PADED020</u>

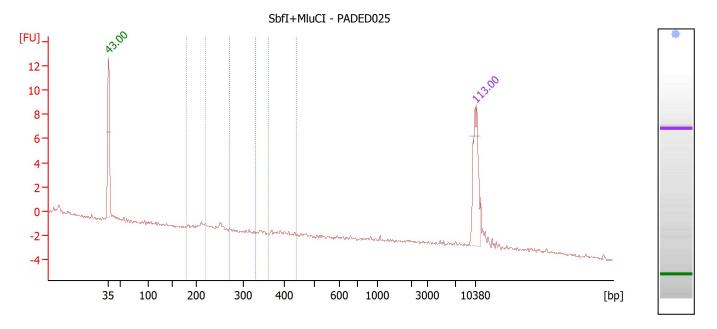
Peak		Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	4	35	125.00	5,411.3	Lower Marker
2		10,380	75.00	10.9	Upper Marker

Region table for sample 10 : PstI+MluCI - PADED020

From [bp]	To [b	p] Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/µl]	Molarity [pmol/l]	Co lor
180	220	12.6	7	199	5.9	25.57	195.7	
270	330	9.0	5	297	5.9	16.30	83.4	
360	440	9.1	5	394	5.6	14.76	56.9	

Assay Class: High Sensitivity DNA Assay Created: 3/10/2014 3:02:29 PM Data Path: C:\...r flounder Pinsky_High Sensitivity DNA Assay_DE72901330.xad Created: 3/10/2014 3:02:29 PM Modified: 4/8/2014 2:46:19 PM

Electropherogram Summary Continued ...



Overall Results for sample 11: <u>SbfI+MluCI - PADED025</u>

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

 Noise:
 0.1
 Corr. Area 2:
 0.0

 Result Flagging Color:
 Corr. Area 3:
 0.0

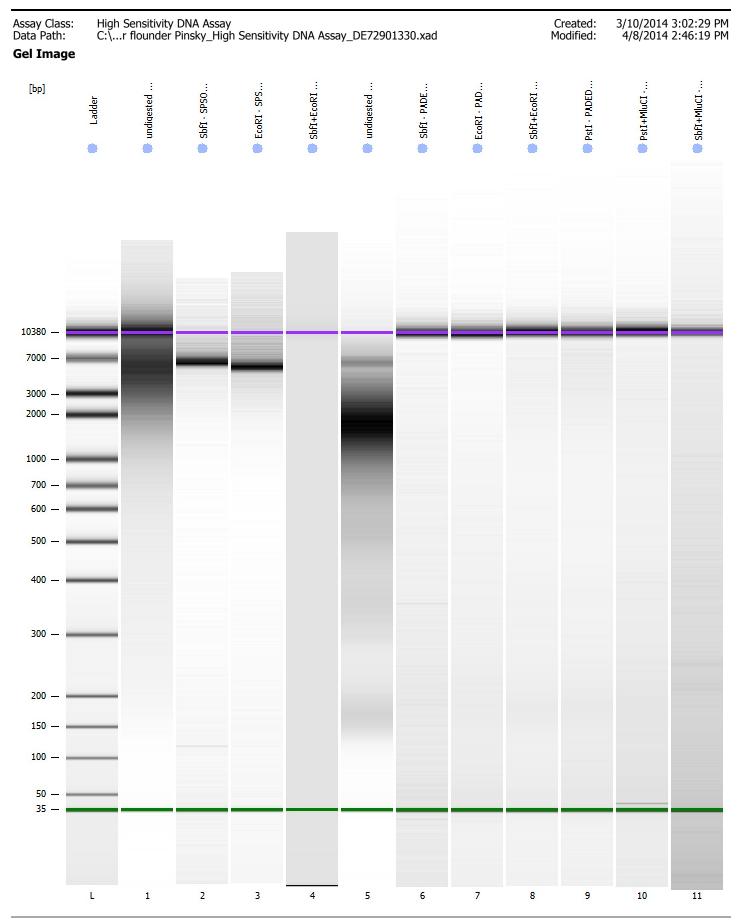
Result Flagging Label: All Other Samples

Peak table for sample 11 : <u>SbfI+MluCI - PADED025</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

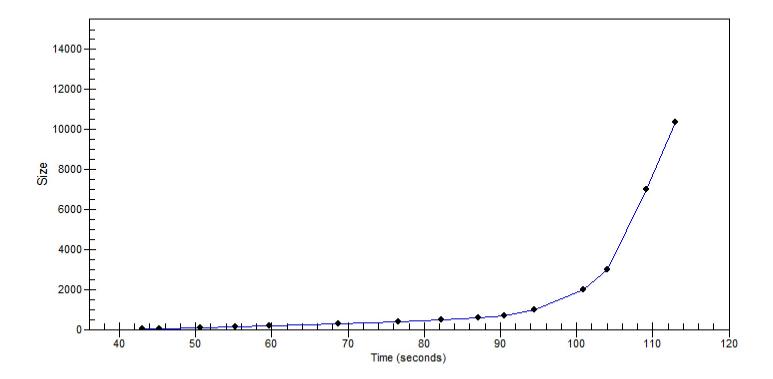
Region table for sample 11: SbfI+MluCI - PADED025

From [bp]	To [b	p] Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/µl]	Molarity [pmol/l]	Co lor	
180	220	0.0	0	212	0.1	0.05	0.3		
270	330	0.0	0	0	0.0	0.00	0.0		
360	440	0.0	0	0	0.0	0.00	0.0		



Curves

Standard Curve



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		3/10/2014 3:43:55 PM	(GMT04:00) Eastern Standard Time	foran103	RUTGERS-4341 E48
Run started on port 1 (File: C:\Program Files\Agilent\21 00 bioanalyzer\210 0 expert\Data\20: 4-03-10\Pinsky_High Sensitivity DNA Assay_DE72901 330_2014-03-10_15-02-29.xad)	1 -	Instrument	Run		3/10/2014 3:02:39 PM	(GMT04:00) Eastern Standard Time	foran103	RUTGERS-4341 E48
Product Number: G2939A	r	Instrument	Run		3/10/2014 3:02:39 PM	(GMT04:00) Eastern Standard Time	foran103	RUTGERS-4341 E48
Name :		Instrument	Run		3/10/2014 3:02:39 PM	(GMT04:00) Eastern Standard Time	foran103	RUTGERS-4341 E48
Vendor : Agilent Technologies	t	Instrument	Run		3/10/2014 3:02:39 PM	(GMT04:00) Eastern Standard Time	foran103	RUTGERS-4341 E48
Serial# : DE72901330		Instrument	Run		3/10/2014 3:02:39 PM	(GMT04:00) Eastern Standard Time	foran103	RUTGERS-4341 E48
Firmware : C.01.069		Instrument	Run		3/10/2014 3:02:39 PM	(GMT04:00) Eastern Standard Time	foran103	RUTGERS-4341 E48
Cartridge : Electrode		Instrument	Run		3/10/2014 3:02:39 PM	(GMT04:00) Eastern Standard Time	foran103	RUTGERS-4341 E48