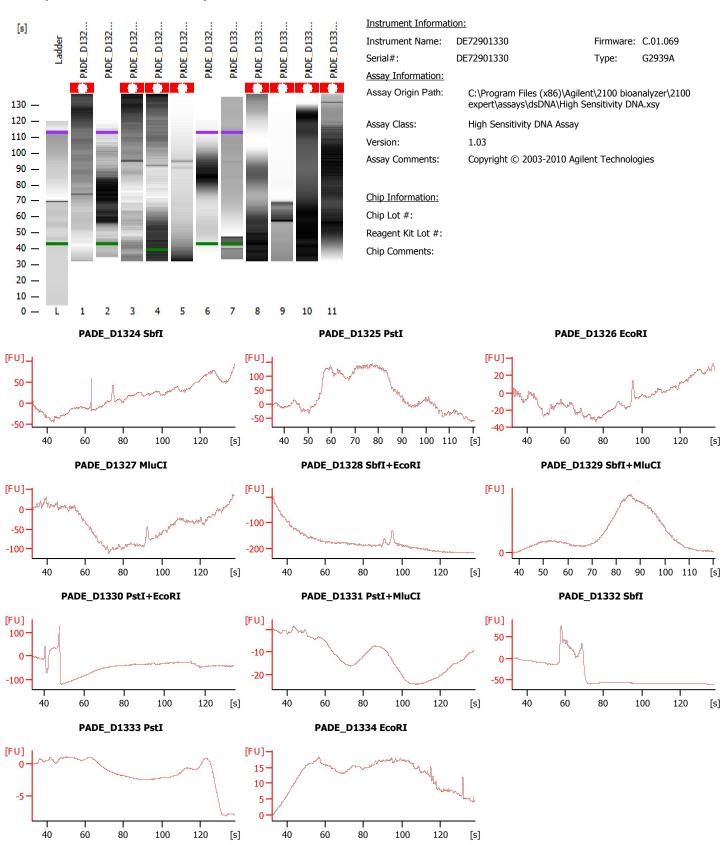
Assay Class: High Sensitivity DNA Assay Created: 11/24/2014 11:11:11 AM Data Path: C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11-11.xad Created: 11/24/2014 11:52:32 AM

Electrophoresis File Run Summary



Assay Class: High Sensitivity DNA Assay C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11-11.xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11-11.xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11-11.xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11-11.xad Modified: 11/24/2014 11:52:32 AM

Electrophoresis File Run Summary (Chip Summary)

PADE_D1324 SbfI PADE_D1325 PstI PADE_D1326 EcoRI PADE_D1327 MluCI PADE_D1328 SbfI+EcoRI PADE_D1329 SbfI+MluCI PADE_D1330 PstI+EcoRI PADE_D1331 PstI+MluCI PADE_D1332 SbfI PADE_D1333 SbfI PADE_D1333 PstI	Sample Comment	Rest. Digest	Statu Observation s * * * * * * * * * * * *	Result Label	Result Color
PADE_D1334 EcoRI Ladder			Ž		
Chip Lot #			F	Reagent Kit Lot #	

Chip Comments:

Assay Class: High Sensitivity DNA Assay C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11.11.xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11.xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11.xad Modified: 11/24/2014 11:52:32 AM

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

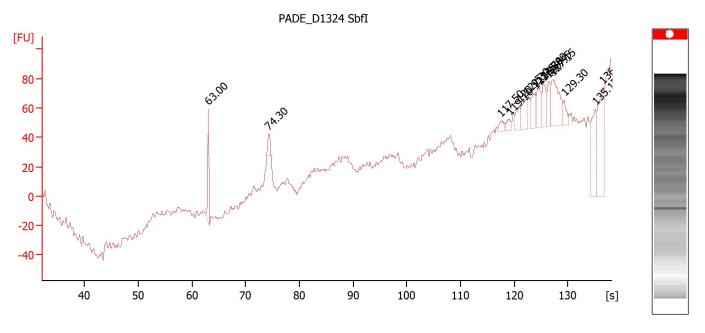
Filter Width [s]: 0.5 Polynomial Order: 4

Ladder

Size	Area
35	160
50	210
100	208
150	221
200	242
300	270
400	305
500	306
600	336
700	321
1000	366
2000	413
3000	411
7000	400
10380	214
	35 50 100 150 200 300 400 500 600 700 1000 2000 3000 7000

Assay Class: High Sensitivity DNA Assay C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11-11.xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11-11.xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11-11.xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11-11.xad Modified: 11/24/2014 11:52:32 AM

Electropherogram Summary



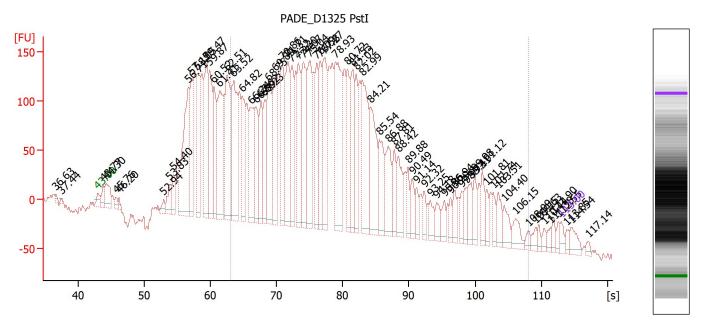
Overall Results for sample 1: PADE_D1324 SbfI

Number of peaks found: 0 Noise: 1.7

Peak table for sample 1:		<u>PADE D1324</u>	<u>SbfI</u>	
Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	0	0.00	0.0	
2	0	0.00	0.0	
3	0	0.00	0.0	
4	0	0.00	0.0	
5	0	0.00	0.0	
6	0	0.00	0.0	
7	0	0.00	0.0	
8	0	0.00	0.0	
9	0	0.00	0.0	
10	0	0.00	0.0	
11	0	0.00	0.0	
12	0	0.00	0.0	
13	0	0.00	0.0	
14	0	0.00	0.0	

Assay Class: High Sensitivity DNA Assay C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11.1xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11.1xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11.1xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11.1xad Modified: 11/24/2014 11:52:32 AM

Electropherogram Summary Continued ...



Overall Results for sample 2: PADE D1325 PstI

Number of peaks found: 73 Corr. Area 1: 6,154.9

Noise: 5.0

Peak table	for sample 2:	PADE D1325 Pst	<u>I</u>	
Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	13	0.00	0.0	
2	16	0.00	0.0	
3	35	125.00	5,411.3	Lower Marker
4	38	229.11	9,071.4	
5	41	490.68	18,356.0	
6	47	106.72	3,463.1	
7	49	71.23	2,221.6	
8	87	133.35	2,323.4	
9	92	331.36	5,450.2	
10	95	352.34	5,595.9	
11	111	2,176.73	29,813.3	
12	114	1,063.07	14,124.5	
13	120	1,262.43	15,938.5	
14	130	1,589.75	18,533.9	
15	133	1,253.05	14,295.8	
16	137	971.54	10,716.9	
17	144	1,540.37	16,251.4	
18	162	1,735.58	16,224.9	
19	207	1,606.83	11,783.0	
20	226	924.32	6,188.0	
21	248	1,017.52	6,219.7	
22	258	795.69	4,677.8	
23	269	660.92	3,725.3	
24	278	624.71	3,404.2	
25	286	1,144.21	6,060.6	
26	301	1,018.00	5,129.1	

Assay Class: High Sensitivity DNA Assay C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11-11.xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11-11.xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11-11.xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11-11.xad Modified: 11/24/2014 11:52:32 AM

Electropherogram Summary Continued ...

Pea	k table for sample 2	2: <u>F</u>	ADE_D1325	<u>PstI</u>		
Peak	Size [bp]	Conc. [pg		Molarity [pmol/l]	Observ	ations
27	304	924.03		4,606.4		
28	307	1,200.56		5,930.1		
29	309	840.24		4,123.3		
30	312	894.07		4,342.2		
31	315	1,225.19		5,902.2		
32	318	1,104.22		5,265.6		
33	321	754.95		3,561.0		
34	323	710.01		3,332.3		
35	325	1,146.23		5,342.0		
36	331	1,713.79		7,854.4		
37	336	726.84		3,272.8		
38	339	810.28		3,619.6		
39	341	597.16		2,655.0		
40	344	1,300.12		5,726.4		
41	348	1,069.67		4,656.9		
42	352	610.47		2,624.4		
43	357	620.73		2,635.4		
44	360	345.62		1,454.9		
45	362	487.38		2,040.2		
46	367	226.59		936.0		
47	369	250.75		1,030.2		
48	371	181.14		739.9		
49	375	170.60		689.6		
50	378	192.75		772.8		
51	381	196.07		779.8		
52	385	171.07		673.4		
53	388	124.88		487.7		
54	390	198.64		771.5		
55	394	148.40		571.3		
56	396	200.76		768.1		
57	398	253.46		964.3		
58	403	238.28		895.4		
59	483	253.20		793.6		
60	516	149.19		438.3		
61	548	162.90		450.3		
62	575	215.05		566.9		
63	606	209.25		523.2		
64	669	210.32		476.5		
65	998	61.50		93.4		
66	1,549	70.15		68.6		
67 68	1,805	50.65		42.5		
68	2,424	55.95		35.0		
69 70	4,549	60.62		20.2		
70	6,971	73.31		15.9		
71 72	8,995	57.02		9.6	Upper M	larkor.
	10,380	75.00		10.9	Upper M	iai kei
73 74	13,024	0.00		0.0		
74 75	15,165 23,224	0.00		0.0		
	23,224	0.00		0.0		
	n table for sample 2		DE_D1325 Ps			
From	To [bp] Corr.		Average Size	Size distribution in	Conc.	Molarity
[bp]	Area		[bp]	CV [%]	[pg/µl]	[pmol/l]

336

33,680.53

23.3

Co

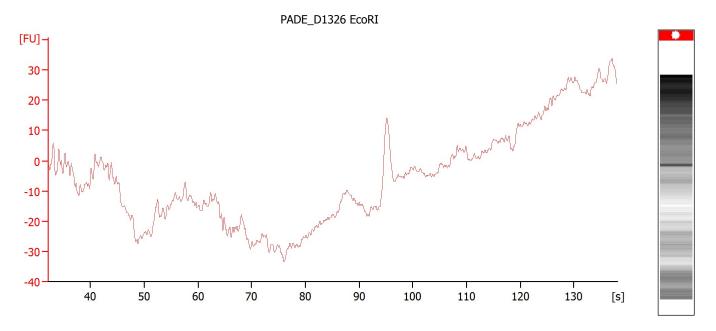
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Printed: 11/24/2014 11:54:05 AM

161,988.9

Assay Class: High Sensitivity DNA Assay Created: 11/24/2014 11:11:11 AM Data Path: C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11.xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11-11.xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11-11-11-11.xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11-11

Electropherogram Summary Continued ...

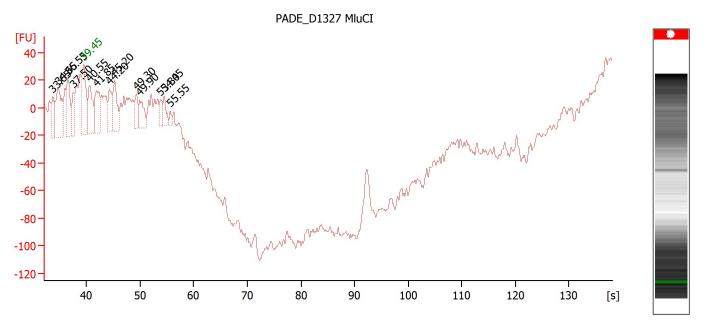


Overall Results for sample 3: PADE D1326 EcoRI

Noise: 1.1

Assay Class: High Sensitivity DNA Assay C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11-11.xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11-11.xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11-11.xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11-11.xad Modified: 11/24/2014 11:52:32 AM

Electropherogram Summary Continued ...



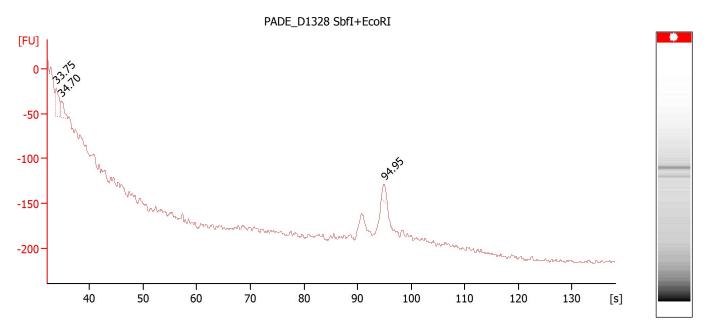
Overall Results for sample 4: PADE D1327 MluCI

Number of peaks found: 13 Noise: 2.8

Peak ta	ble	for sample 4:	PADE D1327 MI	<u>ıCI</u>	
Peak		Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1		0	0.00	0.0	
2		0	0.00	0.0	
3		0	0.00	0.0	
4		0	0.00	0.0	
5	◀	0	0.00	0.0	Lower Marker
6		0	0.00	0.0	
7		0	0.00	0.0	
8		0	0.00	0.0	
9		0	0.00	0.0	
10		0	0.00	0.0	
11		0	0.00	0.0	
12		0	0.00	0.0	
13		0	0.00	0.0	
14		0	0.00	0.0	

Assay Class: High Sensitivity DNA Assay C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11.1xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11.1xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11.1xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11.1xad Modified: 11/24/2014 11:52:32 AM

Electropherogram Summary Continued ...



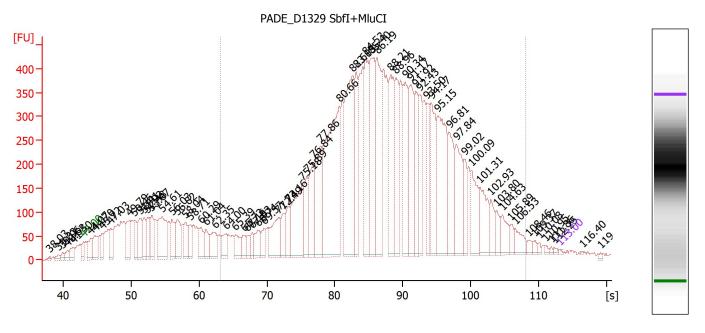
Overall Results for sample 5 : PADE_D1328 SbfI+EcoRI

Number of peaks found: 0 Noise: 1.6

Peak table for sample 5:		<u>PADE_D1328</u>		
Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	0	0.00	0.0	
2	0	0.00	0.0	
3	0	0.00	0.0	

Assay Class: High Sensitivity DNA Assay C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11.1xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11.1xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11.1xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11.1xad Modified: 11/24/2014 11:52:32 AM

Electropherogram Summary Continued ...



Overall Results for sample 6 : PADE_D1329 SbfI+MluCI

Number of peaks found: 70 Corr. Area 1: 12,399.3

Noise: 4.6

Peak table	e for sample 6:	<u>PADE D1329 Sb</u>	<u>fI+MluCI</u>	
Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/I]	Observations
1	18	0.00	0.0	
2	22	0.00	0.0	
3	24	0.00	0.0	
4	27	0.00	0.0	
5	30	0.00	0.0	
6	35	125.00	5,411.3	Lower Marker
7	40	2,952.49	113,196.8	
8	42	3,512.72	126,128.5	
9	47	2,247.08	73,141.0	
10	53	2,537.04	72,768.8	
11	69	4,089.24	90,067.0	
12	73	2,914.85	60,775.0	
13	78	4,298.22	83,340.4	
14	81	2,951.97	55,144.8	
15	84	2,955.68	53,122.6	
16	88	3,443.79	59,481.4	
17	97	8,242.37	129,255.6	
18	106	3,618.29	51,787.0	
19	111	4,039.28	54,939.0	
20	120	2,660.91	33,602.8	
21	125	2,349.15	28,546.1	
22	136	2,756.75	30,766.7	
23	141	2,101.52	22,579.1	
24	151	3,243.89	32,450.7	
25	214	2,159.02	15,290.1	
26	235	1,996.01	12,873.3	

Assay Class: High Sensitivity DNA Assay C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11-11.xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11-11.xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11-11.xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11-11.xad Modified: 11/24/2014 11:52:32 AM

Electropherogram Summary Continued ...

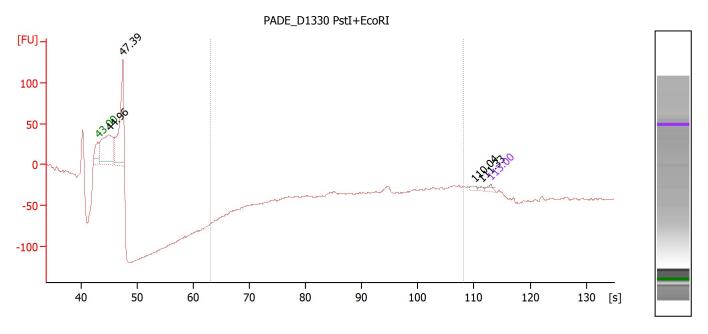
Peak t	able for sample 6	: <u>PADE D132</u>	9 SbfI+MluCI	
Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
27	255	1,400.81	8,313.3	
28	262	1,037.07	5,999.7	
29	272	1,005.03	5,596.6	
30	286	2,090.85	11,081.5	
31	298	1,534.71	7,790.9	
32	307	4,405.67	21,754.8	
33	309	1,954.32	9,572.9	
34	312	2,482.59	12,074.0	
35	318	8,111.81	38,626.6	
36	321	3,908.09	18,473.1	
37	324	5,583.34	26,136.5	
38	327	7,193.19	33,323.3	
39	336	21,750.46	97,986.6	
40	343	16,094.47	71,153.8	
41	345	5,904.57	25,965.8	
42	349	8,831.84	38,330.7	
43	352	10,146.01	43,675.2	
44	355	10,569.59	45,163.8	
45	361	8,359.21	35,061.1	
46	364	6,666.55	27,771.0	
47	368	8,083.56	33,256.4	
48	371	7,147.97	29,190.1	
49	374	5,209.54	21,133.0	
50	375	5,046.55	20,379.3	
51	379	4,159.99	16,642.9	
52	381	6,449.52	25,652.4	
53	384	10,907.36	43,014.8	
54	390	5,436.41	21,137.8	
55	393	6,061.78	23,366.0	
56	397	2,678.93	10,224.5	
57	411	4,229.75	15,599.0	
58	497	4,087.28	12,452.4	
59	555	1,764.10	4,817.8	
60	585	1,212.66	3,141.3	
61	614	1,687.35	4,162.6	
62	660	760.03	1,745.6	
63	682	1,490.18	3,308.5	
64	1,188	362.66	462.4	
65	1,665	269.14	244.9	
66	2,070	173.66	127.1	
67	2,910	152.35	79.3	
68	6,741	105.95	23.8	
69	8,051	132.52	24.9	
70	10,380	75.00	10.9	Upper Marker
71	20,922	0.00	0.0	
72	29,257	0.00	0.0	
Region to	able for sample 6	: PADE D1329	SbfI+MluCI	

Region table for sample 6: PADE D1329 SbfI+MluCI

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	12,399.3	77	370	19.4	246,771.61	1,051,117.4	

Assay Class: High Sensitivity DNA Assay C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11.xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11.xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11.xad Modified: 11/24/2014 11:52:32 AM

Electropherogram Summary Continued ...



Overall Results for sample 7: PADE_D1330 PstI+EcoRI

Number of peaks found: 4 Corr. Area 1: 12.7

Noise: 0.8

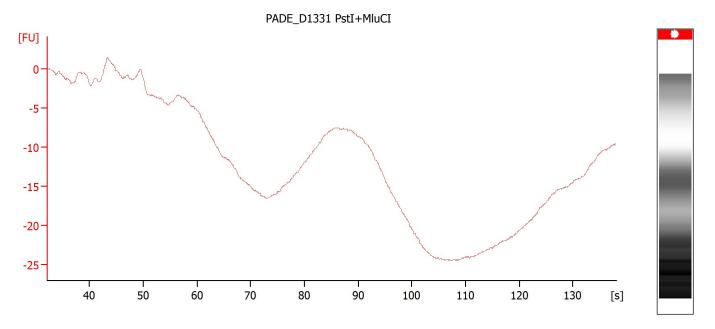
Peak table for sample / :			: <u>PADE_D1330</u>	PSt1+ECOR1		
Peak		Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations	
1	- ∢	35	125.00	5,411.3	Lower Marker	
2		43	3,608.04	126,252.7		
3		55	4,276.69	117,947.2		
4		2,032	52.46	39.1		
5		4,324	40.18	14.1		
6	I	10.380	75.00	10.9	Upper Marker	

Region table for sample 7: PADE_D1330 PstI+EcoRI

From [bp]	To [bp] Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]		Molarity [pmol/l]	Co lor
200	1 000 12 7	2	719	14 5	136 62	293.7	

Assay Class: High Sensitivity DNA Assay C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11.1xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11.1xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11.1xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11.1xad Modified: 11/24/2014 11:52:32 AM

Electropherogram Summary Continued ...

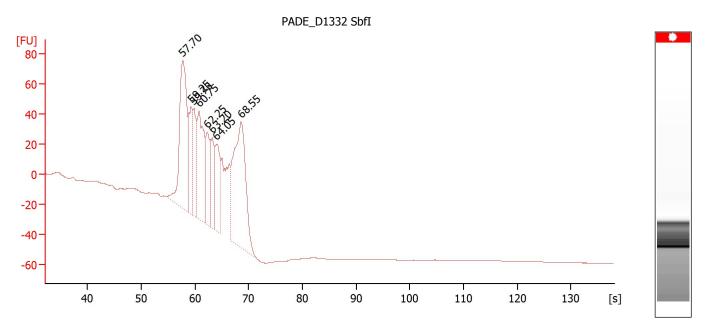


Overall Results for sample 8 : PADE_D1331 PstI+MluCI

Noise: 0.1

Assay Class: High Sensitivity DNA Assay C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11.1xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11.1xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11.1xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11.1xad Modified: 11/24/2014 11:52:32 AM

Electropherogram Summary Continued ...



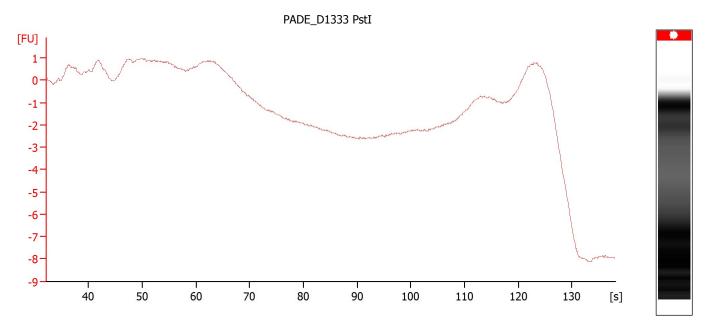
Overall Results for sample 9 : PADE D1332 SbfI

Number of peaks found: 0 Noise: 0.0

Peak table for sample 9:		PADE D1332 Sb	<u>fI</u>	
Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	0	0.00	0.0	
2	0	0.00	0.0	
3	0	0.00	0.0	
4	0	0.00	0.0	
5	0	0.00	0.0	
6	0	0.00	0.0	
7	0	0.00	0.0	
8	0	0.00	0.0	

Assay Class: High Sensitivity DNA Assay C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11.1xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11.1xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11.1xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11.1xad Modified: 11/24/2014 11:52:32 AM

Electropherogram Summary Continued ...

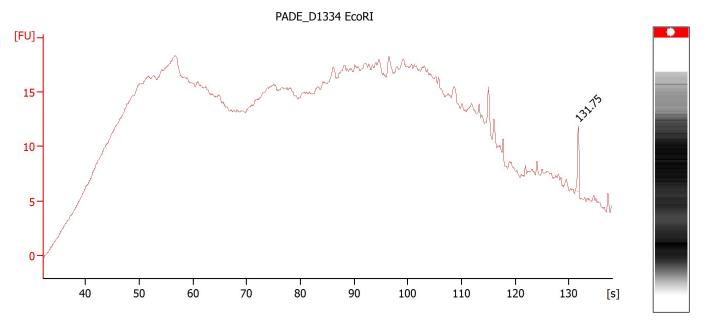


Overall Results for sample 10 : PADE D1333 PstI

Noise: 0.0

Assay Class: High Sensitivity DNA Assay C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11-11.xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11-11.xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11-11.xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11-11.xad Modified: 11/24/2014 11:52:32 AM

Electropherogram Summary Continued ...



Overall Results for sample 11: PADE D1334 EcoRI

Number of peaks found: 0 Noise: 0.1

Peak table for sample 11 : PADE D1334 EcoRI

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

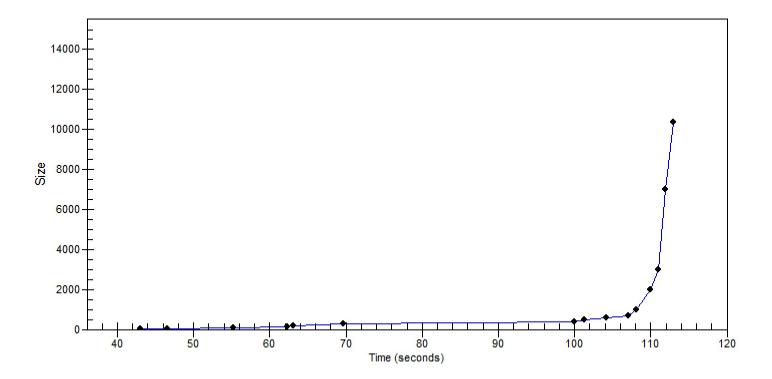
 1
 0
 0.00
 0.0

High Sensitivity DNA Assay C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11-11.xad Created: 11/24/2014 11:11:11 AM Modified: 11/24/2014 11:52:32 AM Assay Class: Data Path: **Gel Image** PADE_D133... PADE_D133... 5 PADE_D132... PADE_D132... PADE_D132... PADE_D133... PADE_D133... PADE_D132... PADE_D132... PADE_D132... PADE_D133... Ladder 140 -135 — 130 -125 — 120 -115 -110 -105 -100 -95 — 90 — 85 **—** 80 -**75** — 70 -65 — 60 — 55 **—** 50 — 45 -40 — 35 — 30 -25 — 20 -15 **—** 10 -L 1 2 3 5 6 10 11

Assay Class: High Sensitivity DNA Assay C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11-11.xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11-11.xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11-11.xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11-11.xad Modified: 11/24/2014 11:52:32 AM

Curves

Standard Curve



Assay Class: High Sensitivity DNA Assay C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11.11.xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11.xad C:\...gh Sensitivity DNA Assay_DE72901330_2014-11-24_11-11.xad Modified: 11/24/2014 11:52:32 AM

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		11/24/2014 11:52:29 AM	(GMT05:00) Eastern Standard Time	foran103	platereader
Run started on port 1 (File: C:\Program Files (x86)\Agilent\2100 bioanalyzer\2100 expert\Data\20:4-11-24\Pinsky_High Sensitivity DNA Assay_DE72901 330_2014-11-2-11-111.xad)	1 - - 4	Instrument	Run		11/24/2014 11:11:16 AM	(GMT05:00) Eastern Standard Time	foran103	platereader
Product Number: G2939A		Instrument	Run		11/24/2014 11:11:16 AM	(GMT05:00) Eastern Standard Time	foran103	platereader
Name :		Instrument	Run		11/24/2014 11:11:16 AM	(GMT05:00) Eastern Standard Time	foran103	platereader
Vendor : Agilent Technologies	t	Instrument	Run		11/24/2014 11:11:16 AM	(GMT05:00) Eastern Standard Time	foran103	platereader
Serial# : DE72901330		Instrument	Run		11/24/2014 11:11:16 AM	(GMT05:00) Eastern Standard Time	foran103	platereader
Firmware : C.01.069		Instrument	Run		11/24/2014 11:11:16 AM	(GMT05:00) Eastern Standard Time	foran103	platereader
Cartridge : Electrode		Instrument	Run		11/24/2014 11:11:16 AM	(GMT05:00) Eastern Standard Time	foran103	platereader