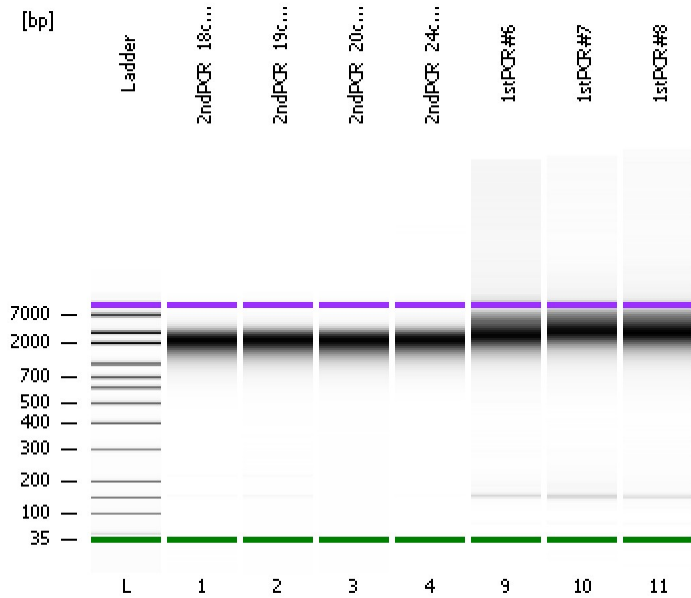


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...\2100 expert\data\2019-07-12\7-12-2019_cycletest_2ndPCR.xad

Created: 7/12/2019 4:54:10 PM
Modified: 7/12/2019 5:41:02 PM

Electrophoresis File Run Summary



Instrument Information:

Instrument Name: DE34903152 Firmware: C.01.069
Serial#: DE34903152 Type: G2938C

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

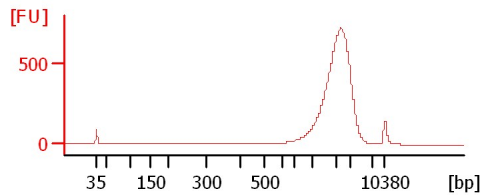
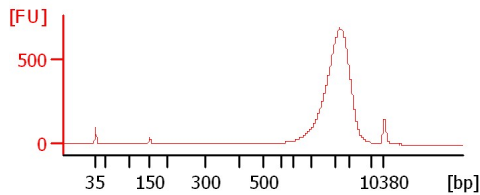
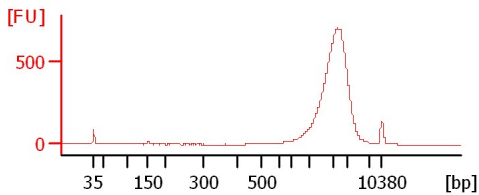
Chip Information:

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

2ndPCR_18cycles_after_pur.

2ndPCR_19cycles_after_pur

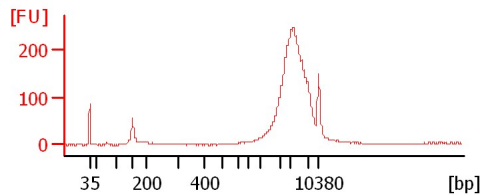
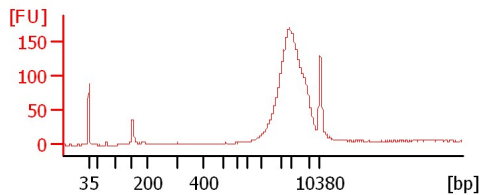
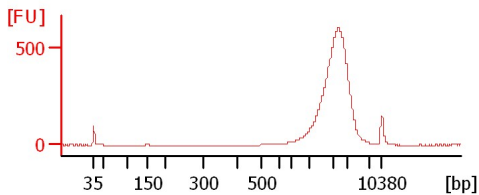
2ndPCR_20cycles_after_pur



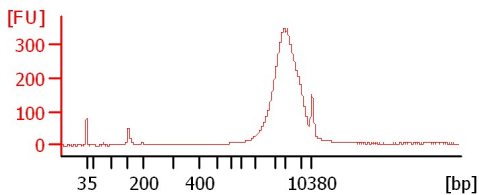
2ndPCR_24cycles_after_pur

1stPCR#6

1stPCR#7



1stPCR#8



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...\2100 expert\data\2019-07-12\7-12-2019_cycletest_2ndPCR.xad

Created: 7/12/2019 4:54:10 PM
 Modified: 7/12/2019 5:41:02 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
2ndPCR_18cycles_after_pur.		<input type="checkbox"/>	✓			
2ndPCR_19cycles_after_pur		<input type="checkbox"/>	✓			
2ndPCR_20cycles_after_pur		<input type="checkbox"/>	✓			
2ndPCR_24cycles_after_pur		<input type="checkbox"/>	✓			
1stPCR#6		<input type="checkbox"/>	✓			
1stPCR#7		<input type="checkbox"/>	✓			
1stPCR#8		<input type="checkbox"/>	✓			
Ladder		<input type="checkbox"/>	✓			

Chip Lot #

Reagent Kit Lot #

Chip Comments :

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...\2100 expert\data\2019-07-12\7-12-2019_cycletest_2ndPCR.xad

Created: 7/12/2019 4:54:10 PM
Modified: 7/12/2019 5:41:02 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/ μ l] : 1950
Uses Standard Area for Ladder Fragments
Lower Marker Concentration [pg/ μ l] : 125
Upper Marker Concentration [pg/ μ l] : 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

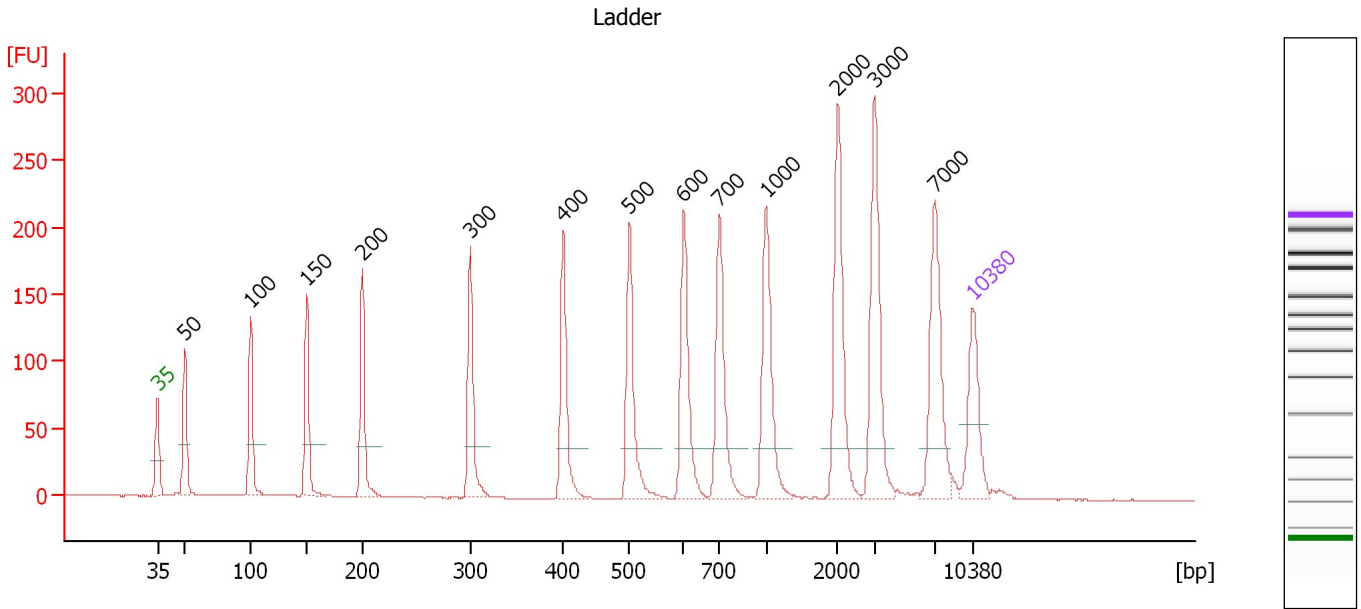
Ladder

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:\...\2100 expert\data\2019-07-12\7-12-2019_cycletest_2ndPCR.xad

Created: 7/12/2019 4:54:10 PM
 Modified: 7/12/2019 5:41:02 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

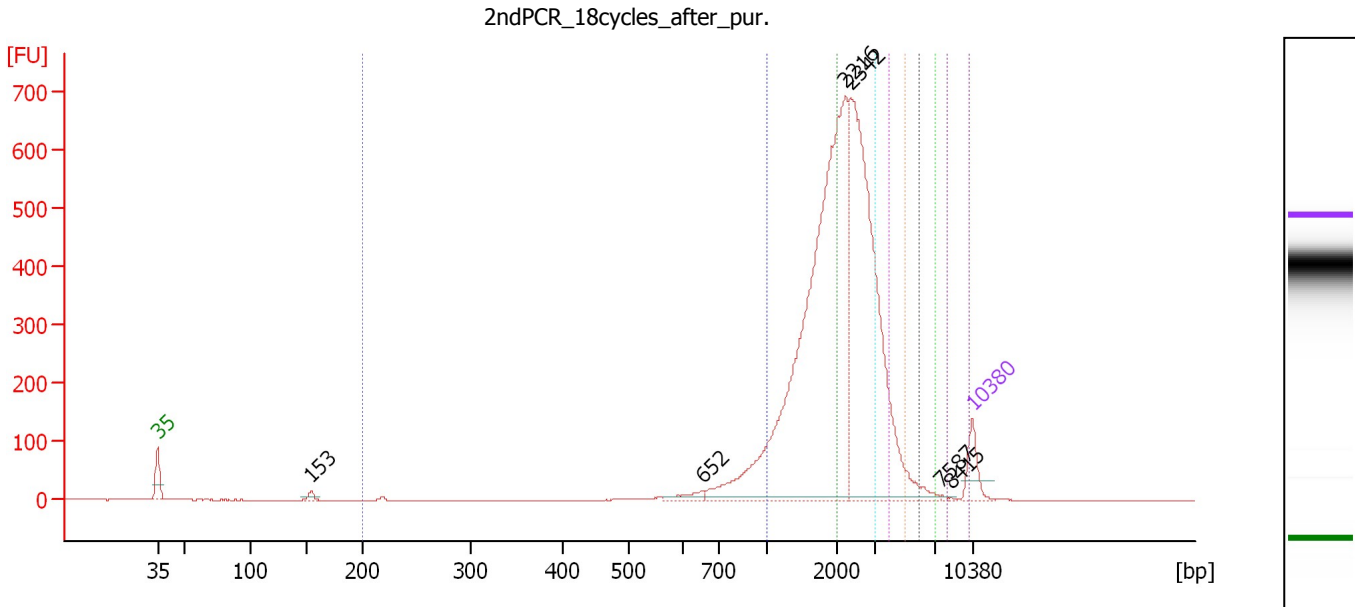
Peak table for Ladder

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	50.99
4	150	150.00	1,515.2	Ladder Peak	55.84
5	200	150.00	1,136.4	Ladder Peak	60.60
6	300	150.00	757.6	Ladder Peak	69.86
7	400	150.00	568.2	Ladder Peak	77.85
8	500	150.00	454.5	Ladder Peak	83.54
9	600	150.00	378.8	Ladder Peak	88.20
10	700	150.00	324.7	Ladder Peak	91.24
11	1,000	150.00	227.3	Ladder Peak	95.25
12	2,000	150.00	113.6	Ladder Peak	101.43
13	3,000	150.00	75.8	Ladder Peak	104.57
14	7,000	150.00	32.5	Ladder Peak	109.76
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...\2100 expert\data\2019-07-12\7-12-2019_cycletest_2ndPCR.xad

Created: 7/12/2019 4:54:10 PM
 Modified: 7/12/2019 5:41:02 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : 2ndPCR 18cycles after pur.

Number of peaks found:	6	Corr. Area 5:	135.7
Noise:	0.2	Corr. Area 6:	46.8
Corr. Area 1:	304.5	Corr. Area 7:	23.2
Corr. Area 2:	2,019.9	Corr. Area 8:	8.3
Corr. Area 3:	1,950.9	Corr. Area 9:	5.2
Corr. Area 4:	369.7		

Peak table for sample 1 : 2ndPCR 18cycles after pur.

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	153	19.04	188.0		56.17
3	652	30.68	71.3		89.78
4	2,216	1,863.75	1,274.3		102.11
5	2,342	1,237.31	800.4		102.50
6	7,587	2.77	0.6		110.33
7	8,415	1.64	0.3		111.12
8	10,380	75.00	10.9	Upper Marker	113.00

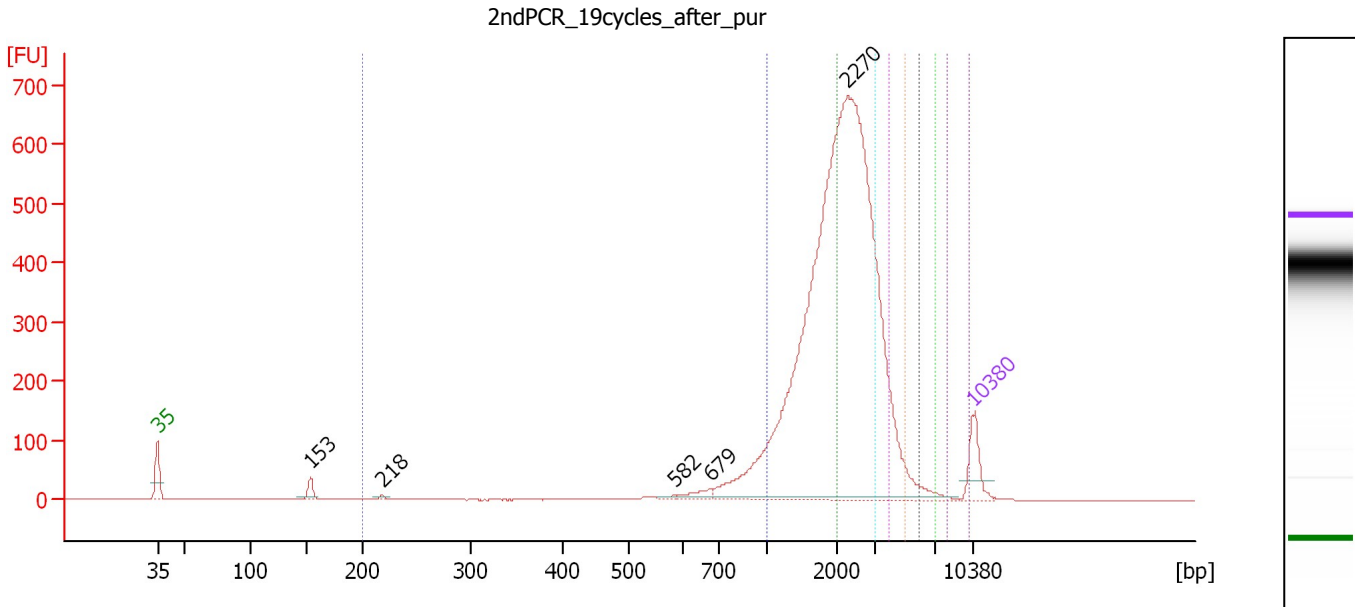
Region table for sample 1 : 2ndPCR 18cycles after pur.

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
200	1,000	805	242.56	304.5	496.0	6	19.0
1,000	2,000	1,645	1,378.89	2,019.9	1,269.9	41	15.7
2,000	3,000	2,452	1,279.82	1,950.9	790.8	40	11.6
3,000	4,000	3,397	243.64	369.7	108.7	8	8.5
4,000	5,000	4,363	90.05	135.7	31.3	3	6.6
5,000	6,000	5,375	31.28	46.8	8.8	1	5.5
6,000	7,000	6,400	15.63	23.2	3.7	0	4.7
7,000	8,000	7,411	5.58	8.3	1.1	0	4.0
8,000	10,000	9,533	3.33	5.2	0.5	0	6.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...\2100 expert\data\2019-07-12\7-12-2019_cycletest_2ndPCR.xad

Created: 7/12/2019 4:54:10 PM
 Modified: 7/12/2019 5:41:02 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : 2ndPCR 19cycles after pur

Number of peaks found:	5	Corr. Area 5:	146.6
Noise:	0.2	Corr. Area 6:	45.8
Corr. Area 1:	299.1	Corr. Area 7:	21.7
Corr. Area 2:	1,934.4	Corr. Area 8:	9.0
Corr. Area 3:	1,926.3	Corr. Area 9:	4.6
Corr. Area 4:	397.3		

Peak table for sample 2 : 2ndPCR 19cycles after pur

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	153	37.54	371.7		56.13
3	218	6.93	48.1		62.29
4	582	6.53	17.0		87.35
5	679	28.71	64.1		90.60
6	2,270	2,674.53	1,785.5		102.28
7	10,380	75.00	10.9	Upper Marker	113.00

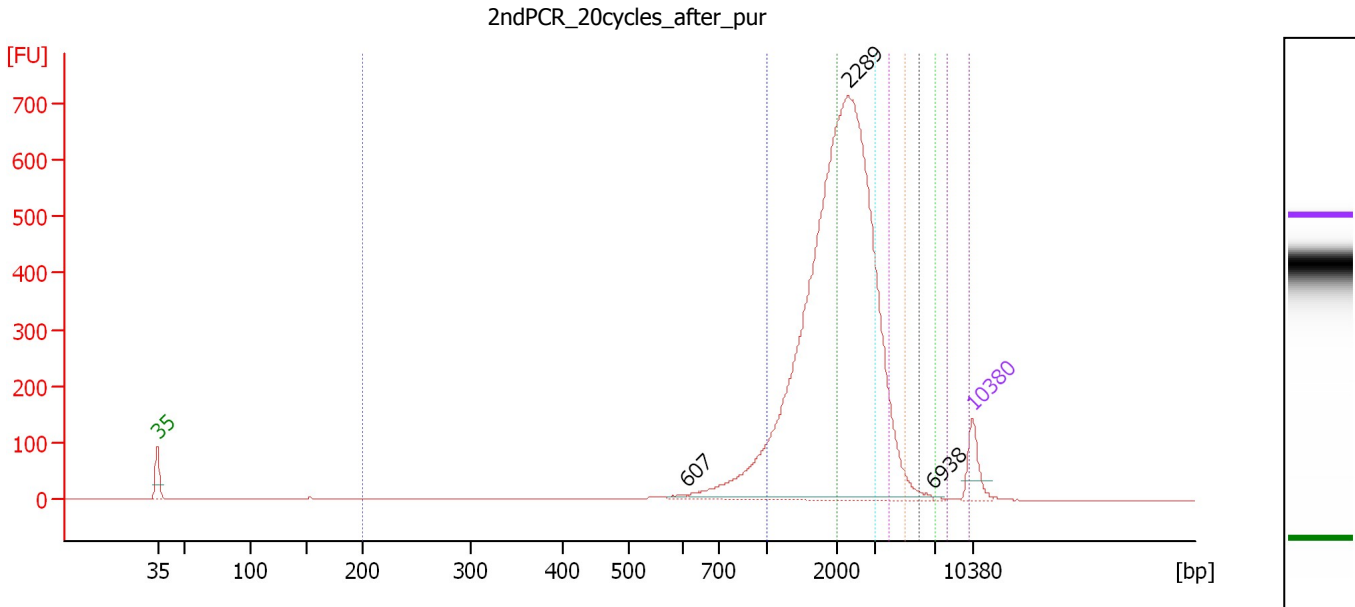
Region table for sample 2 : 2ndPCR 19cycles after pur

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	795	210.71	299.1	449.9	6	20.5
1,000	2,000	1,647	1,161.00	1,934.4	1,068.3	40	15.7
2,000	3,000	2,459	1,111.28	1,926.3	684.8	40	11.6
3,000	4,000	3,403	230.26	397.3	102.5	8	8.6
4,000	5,000	4,372	85.58	146.6	29.7	3	6.6
5,000	6,000	5,392	26.93	45.8	7.6	1	5.5
6,000	7,000	6,412	12.87	21.7	3.0	0	4.5
7,000	8,000	7,392	5.33	9.0	1.1	0	4.2
8,000	10,000	9,390	2.59	4.6	0.4	0	7.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...\2100 expert\data\2019-07-12\7-12-2019_cycletest_2ndPCR.xad

Created: 7/12/2019 4:54:10 PM
 Modified: 7/12/2019 5:41:02 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : 2ndPCR 20cycles after pur

Number of peaks found:	3	Corr. Area 5:	133.8
Noise:	0.3	Corr. Area 6:	33.2
Corr. Area 1:	316.5	Corr. Area 7:	13.5
Corr. Area 2:	2,097.7	Corr. Area 8:	4.2
Corr. Area 3:	1,997.2	Corr. Area 9:	3.0
Corr. Area 4:	381.6		

Peak table for sample 3 : 2ndPCR 20cycles after pur

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	607	8.48	21.2		88.41
3	2,289	2,838.94	1,879.5		102.34
4	6,938	2.75	0.6		109.68
5	10,380	75.00	10.9	Upper Marker	113.00

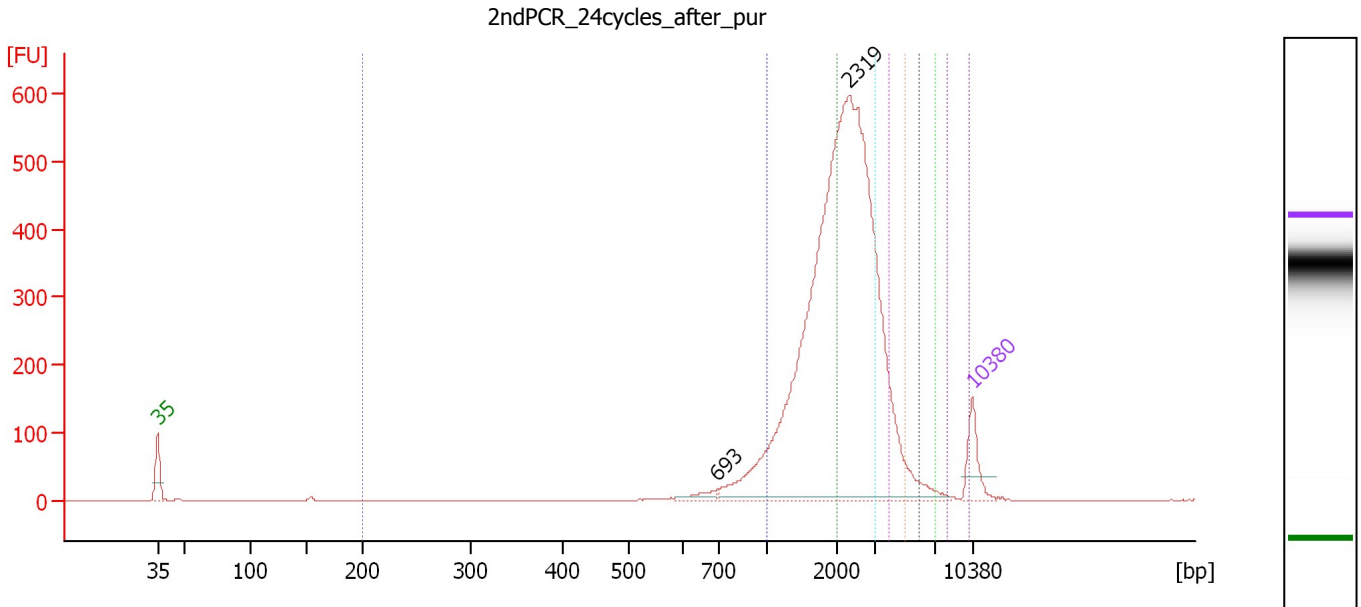
Region table for sample 3 : 2ndPCR 20cycles after pur

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	801	226.02	316.5	459.5	6	19.2
1,000	2,000	1,642	1,284.04	2,097.7	1,184.8	42	15.8
2,000	3,000	2,454	1,174.45	1,997.2	725.1	40	11.6
3,000	4,000	3,389	225.40	381.6	100.8	8	8.4
4,000	5,000	4,346	79.61	133.8	27.8	3	6.7
5,000	6,000	5,359	19.89	33.2	5.6	1	5.4
6,000	7,000	6,395	8.13	13.5	1.9	0	4.7
7,000	8,000	7,373	2.54	4.2	0.5	0	3.9
8,000	10,000	9,608	1.72	3.0	0.3	0	5.3

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...\2100 expert\data\2019-07-12\7-12-2019_cycletest_2ndPCR.xad

Created: 7/12/2019 4:54:10 PM
 Modified: 7/12/2019 5:41:02 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : 2ndPCR 24cycles after pur

Number of peaks found:	2	Corr. Area 5:	134.8
Noise:	0.3	Corr. Area 6:	46.9
Corr. Area 1:	201.7	Corr. Area 7:	24.8
Corr. Area 2:	1,626.7	Corr. Area 8:	9.4
Corr. Area 3:	1,661.0	Corr. Area 9:	5.1
Corr. Area 4:	352.6		

Peak table for sample 4 : 2ndPCR 24cycles after pur

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	693	26.82	58.6		91.03
3	2,319	2,343.03	1,530.9		102.43
4	10,380	75.00	10.9	Upper Marker	113.00

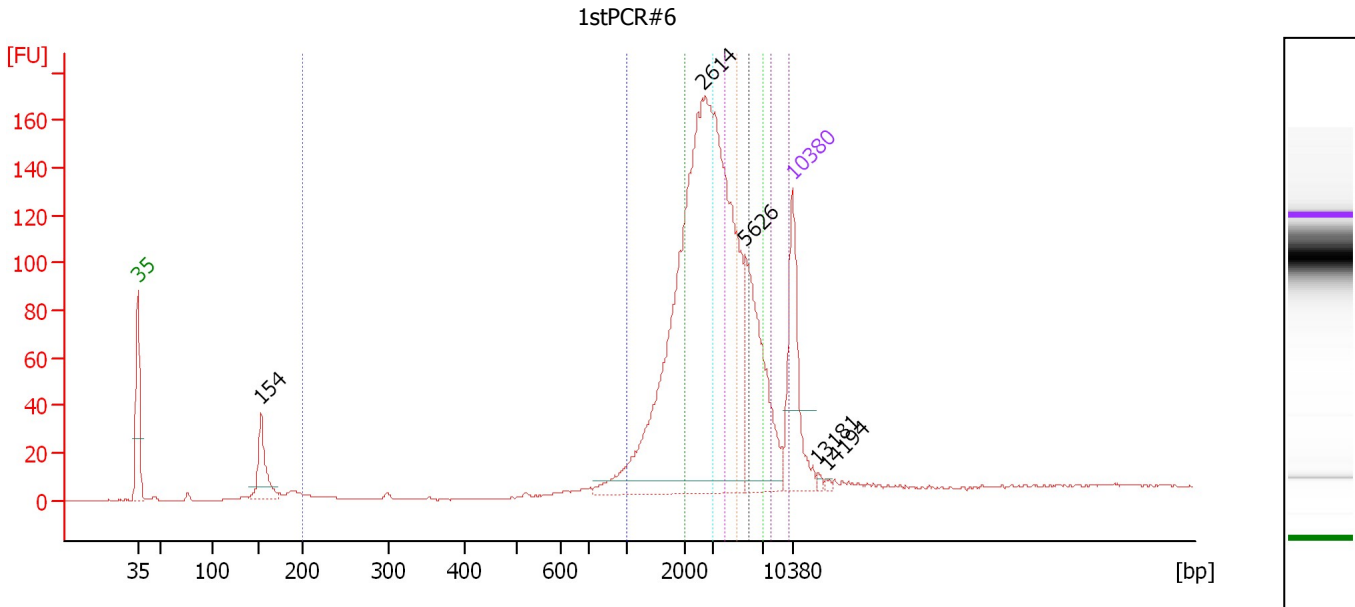
Region table for sample 4 : 2ndPCR 24cycles after pur

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	833	142.21	201.7	265.6	5	15.1
1,000	2,000	1,652	994.37	1,626.7	912.1	40	15.6
2,000	3,000	2,462	976.56	1,661.0	601.1	41	11.5
3,000	4,000	3,400	208.27	352.6	92.8	9	8.6
4,000	5,000	4,379	80.17	134.8	27.7	3	6.6
5,000	6,000	5,394	28.11	46.9	7.9	1	5.3
6,000	7,000	6,397	14.95	24.8	3.5	1	4.6
7,000	8,000	7,378	5.66	9.4	1.2	0	4.0
8,000	10,000	9,477	2.96	5.1	0.5	0	6.7

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...\2100 expert\data\2019-07-12\7-12-2019_cycletest_2ndPCR.xad

Created: 7/12/2019 4:54:10 PM
 Modified: 7/12/2019 5:41:02 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : 1stPCR#6

Number of peaks found:	5	Corr. Area 5:	145.1
Noise:	0.1	Corr. Area 6:	119.3
Corr. Area 1:	32.2	Corr. Area 7:	88.0
Corr. Area 2:	282.2	Corr. Area 8:	44.5
Corr. Area 3:	448.4	Corr. Area 9:	29.7
Corr. Area 4:	182.1		

Peak table for sample 9 : 1stPCR#6

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	154	58.34	575.8		56.18
3	2,614	644.76	373.7		103.36
4	5,626	120.90	32.6		107.98
5	10,380	75.00	10.9	Upper Marker	113.00
6	13,181	0.00	0.0		115.68
7	14,194	0.00	0.0		116.65

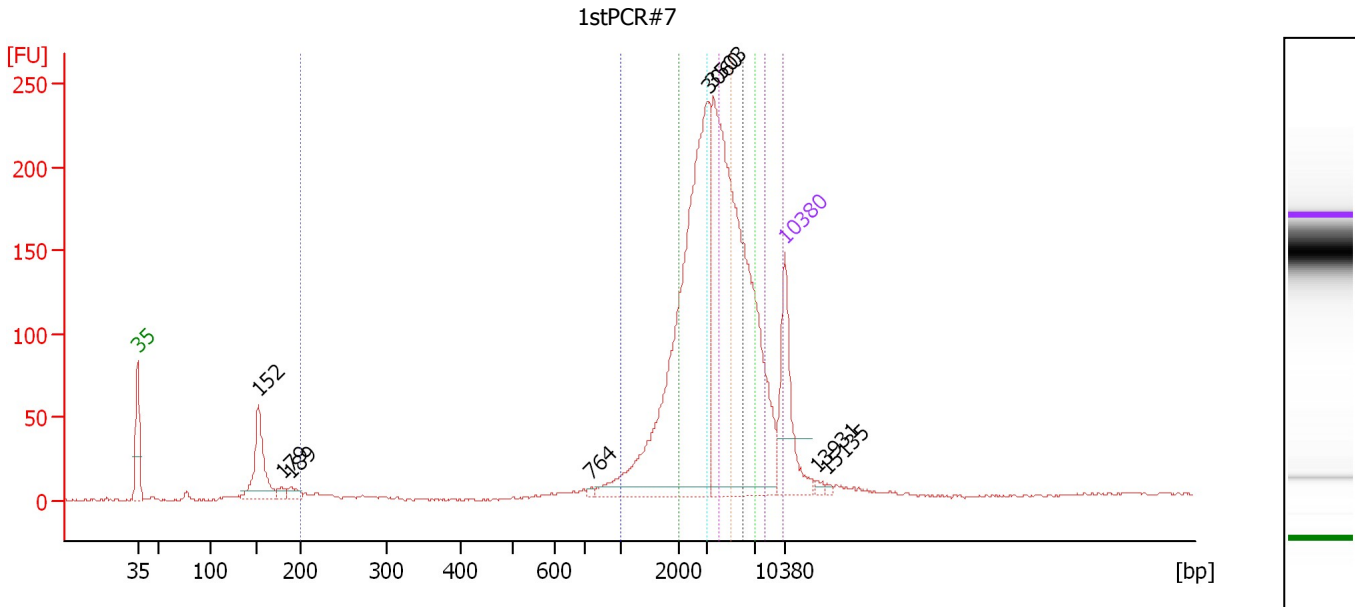
Region table for sample 9 : 1stPCR#6

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	798	22.44	32.2	55.1	2	24.6
1,000	2,000	1,665	164.46	282.2	149.6	19	15.3
2,000	3,000	2,508	251.74	448.4	152.1	30	11.4
3,000	4,000	3,436	102.71	182.1	45.3	12	8.8
4,000	5,000	4,444	82.46	145.1	28.1	10	6.8
5,000	6,000	5,461	68.29	119.3	18.9	8	5.6
6,000	7,000	6,426	50.74	88.0	12.0	6	4.5
7,000	8,000	7,387	25.55	44.5	5.2	3	4.1
8,000	10,000	9,023	16.52	29.7	2.8	2	7.7

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...\2100 expert\data\2019-07-12\7-12-2019_cycletest_2ndPCR.xad

Created: 7/12/2019 4:54:10 PM
 Modified: 7/12/2019 5:41:02 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : 1stPCR#7

Number of peaks found:	8	Corr. Area 5:	254.7
Noise:	0.8	Corr. Area 6:	195.7
Corr. Area 1:	69.2	Corr. Area 7:	163.9
Corr. Area 2:	263.5	Corr. Area 8:	84.5
Corr. Area 3:	541.2	Corr. Area 9:	73.5
Corr. Area 4:	278.3		

Peak table for sample 10 : 1stPCR#7

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	152	97.50	968.9		56.08
3	179	8.78	74.3		58.61
4	189	12.24	97.9		59.59
5	764	2.84	5.6		92.09
6	3,060	416.06	206.0		104.65
7	3,503	459.92	198.9		105.22
8	10,380	75.00	10.9	Upper Marker	113.00
9	13,931	0.00	0.0		116.40
10	15,135	0.00	0.0		117.55

Region table for sample 10 : 1stPCR#7



From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	642	43.87	69.2	169.7	3	43.4
1,000	2,000	1,665	127.41	263.5	115.9	12	15.7
2,000	3,000	2,546	252.17	541.2	150.0	26	11.3
3,000	4,000	3,457	130.28	278.3	57.1	13	8.4
4,000	5,000	4,438	120.08	254.7	41.0	12	6.9
5,000	6,000	5,437	92.94	195.7	25.9	9	5.4
6,000	7,000	6,431	78.41	163.9	18.5	8	4.8

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...\2100 expert\data\2019-07-12\7-12-2019_cycletest_2ndPCR.xad

Created: 7/12/2019 4:54:10 PM
Modified: 7/12/2019 5:41:02 PM

Electropherogram Summary Continued ...

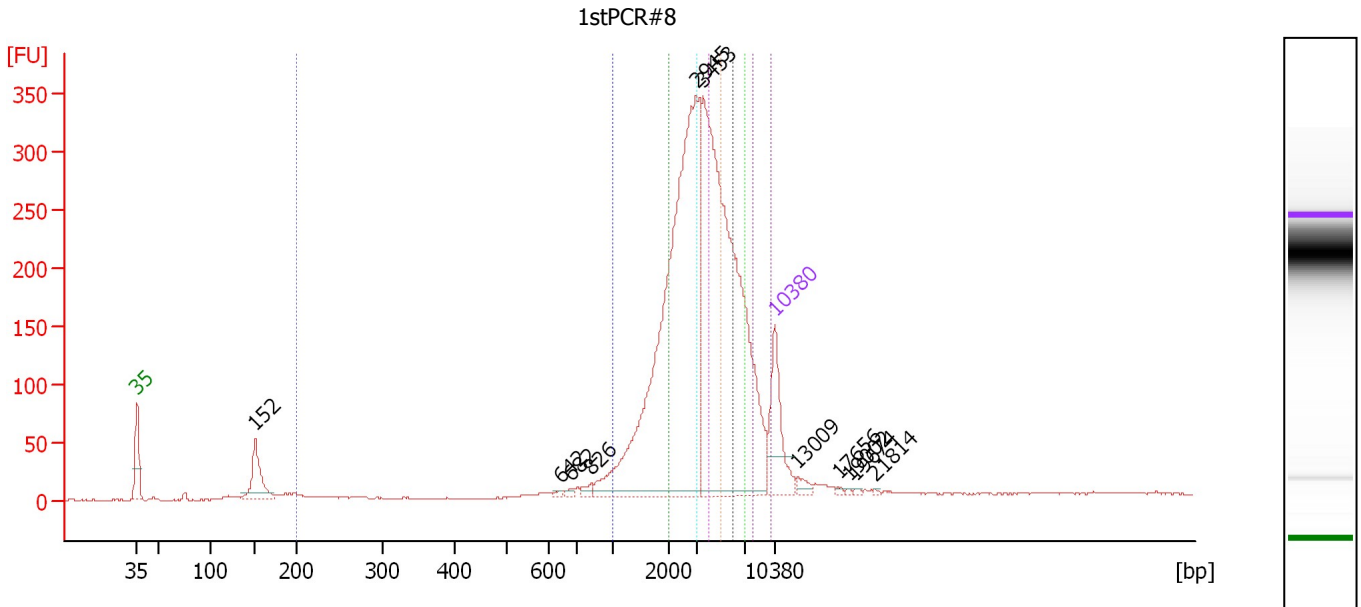
... Region table for sample 10 : 1stPCR#7

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/ μ l]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
7,000	8,000	7,397	40.27	84.5	8.2	 4	3.9
8,000	10,000	8,894	34.01	73.5	5.8	 3	7.4

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...\2100 expert\data\2019-07-12\7-12-2019_cycletest_2ndPCR.xad

Created: 7/12/2019 4:54:10 PM
 Modified: 7/12/2019 5:41:02 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : 1stPCR#8

Number of peaks found:	11	Corr. Area 5:	347.5
Noise:	0.7	Corr. Area 6:	288.1
Corr. Area 1:	105.3	Corr. Area 7:	220.9
Corr. Area 2:	494.2	Corr. Area 8:	116.6
Corr. Area 3:	850.6	Corr. Area 9:	104.0
Corr. Area 4:	403.5		

Peak table for sample 11 : 1stPCR#8

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	152	80.31	802.8		55.99
3	642	3.33	7.9		89.47
4	682	4.16	9.2		90.70
5	826	7.12	13.1		92.92
6	2,945	657.87	338.5		104.40
7	3,453	636.74	279.4		105.16
8	10,380	75.00	10.9	Upper Marker	113.00
9	13,009	0.00	0.0		115.52
10	17,656	0.00	0.0		119.96
11	19,002	0.00	0.0		121.25
12	19,674	0.00	0.0		121.90
13	21,814	0.00	0.0		123.94






Region table for sample 11 : 1stPCR#8

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	711	61.65	105.3	188.2	3	32.9
1,000	2,000	1,659	232.65	494.2	212.5	16	15.6
2,000	3,000	2,528	385.52	850.6	231.1	27	11.4
3,000	4,000	3,449	183.74	403.5	80.7	13	8.6

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...\2100 expert\data\2019-07-12\7-12-2019_cycletest_2ndPCR.xad

Created: 7/12/2019 4:54:10 PM
Modified: 7/12/2019 5:41:02 PM

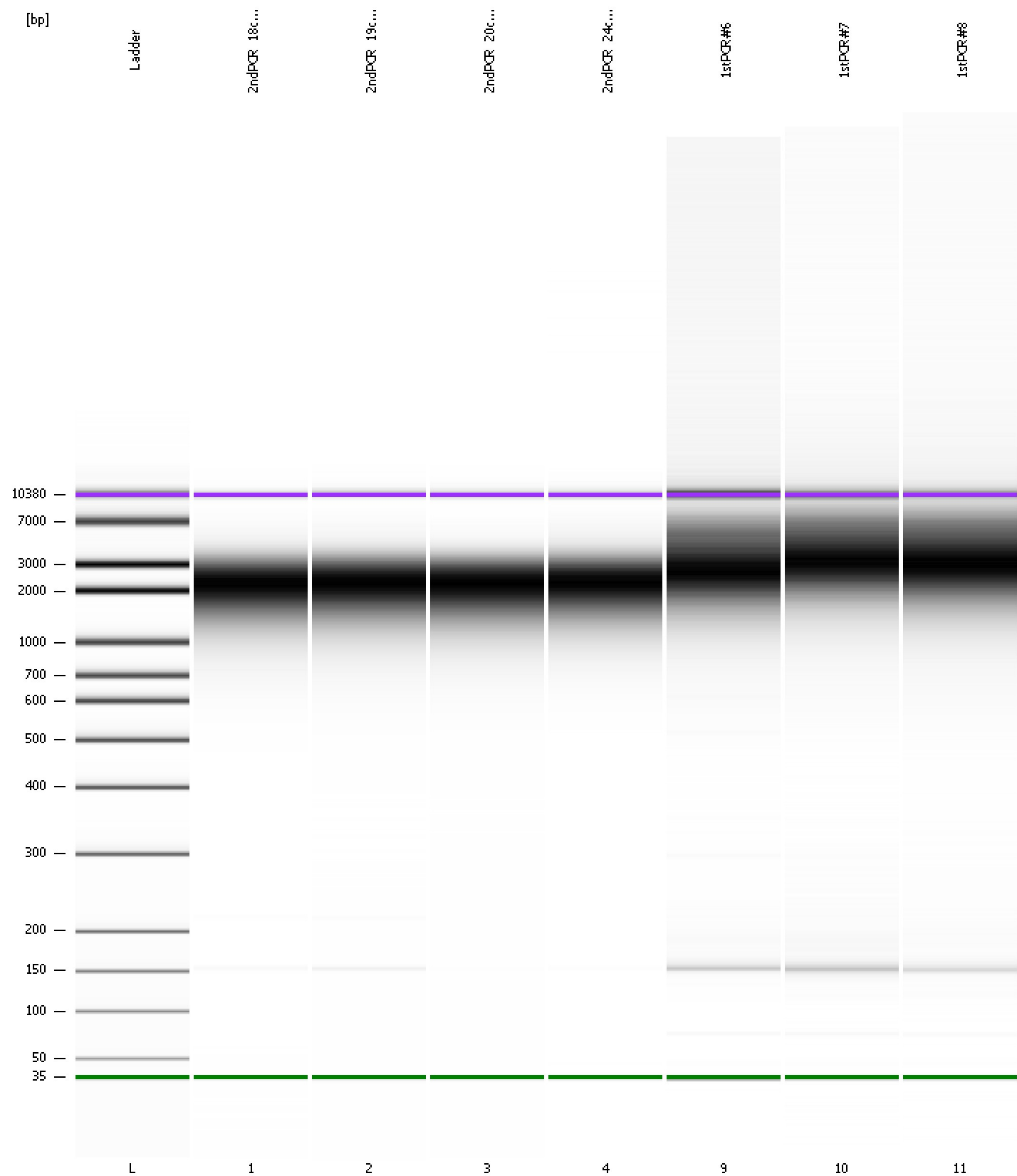
Electropherogram Summary Continued ...**... Region table for sample 11 : 1stPCR#8**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
4,000	5,000	4,427	159.37	347.5	54.5	 11	6.7
5,000	6,000	5,439	133.15	288.1	37.1	 9	5.7
6,000	7,000	6,451	102.83	220.9	24.2	 7	4.6
7,000	8,000	7,407	54.04	116.6	11.1	 4	4.0
8,000	10,000	8,822	46.88	104.0	8.1	 3	7.1

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...\2100 expert\data\2019-07-12\7-12-2019_cycletest_2ndPCR.xad

Created: 7/12/2019 4:54:10 PM
Modified: 7/12/2019 5:41:02 PM

Gel Image

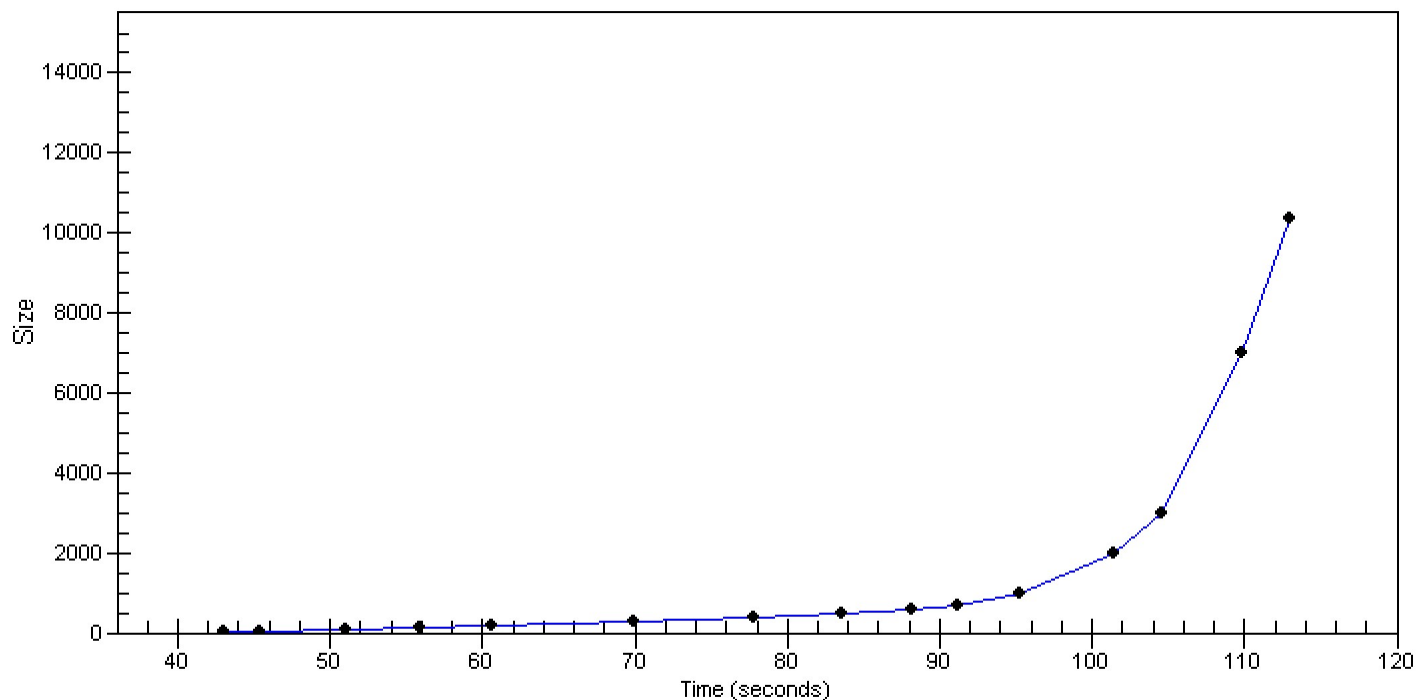


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...\2100 expert\data\2019-07-12\7-12-2019_cycletest_2ndPCR.xad

Created: 7/12/2019 4:54:10 PM
Modified: 7/12/2019 5:41:02 PM

Curves

Standard Curve



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...\2100 expert\data\2019-07-12\7-12-2019_cycletest_2ndPCR.xad

Created: 7/12/2019 4:54:10 PM
 Modified: 7/12/2019 5:41:02 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		7/12/2019 5:35:26 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\2019-07-12\2019-07-12_001.xad)		Instrument	Run		7/12/2019 4:54:15 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938C		Instrument	Run		7/12/2019 4:54:15 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		7/12/2019 4:54:15 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		7/12/2019 4:54:15 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE34903152		Instrument	Run		7/12/2019 4:54:15 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		7/12/2019 4:54:15 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		7/12/2019 4:54:15 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1