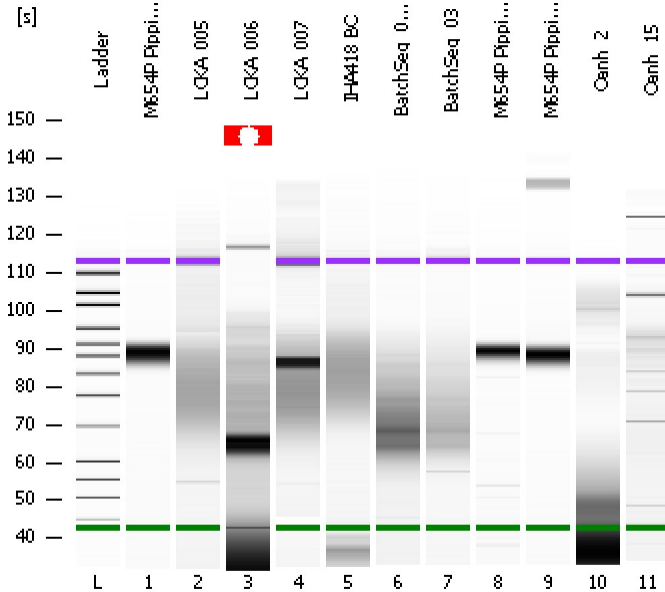


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2018-04-19\2018-04-19\_001.xad

Created: 4/19/2018 11:43:08 AM  
Modified: 4/19/2018 3:23:41 PM

Electrophoresis File Run Summary



Instrument Information:

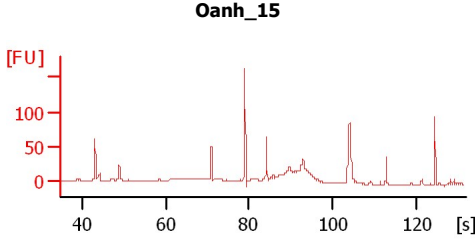
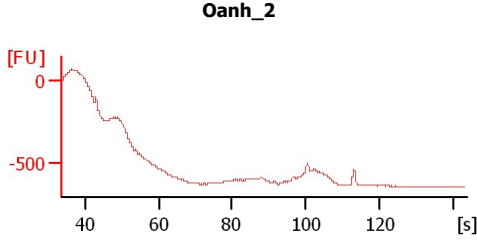
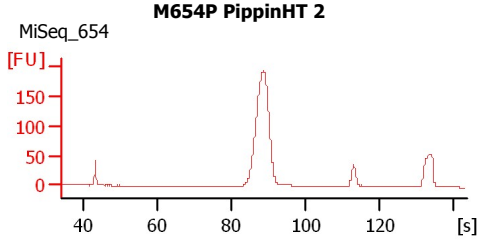
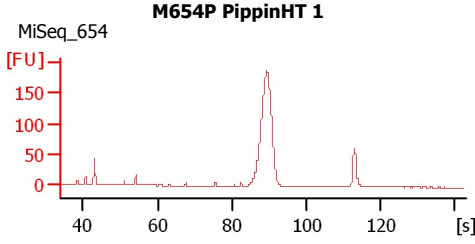
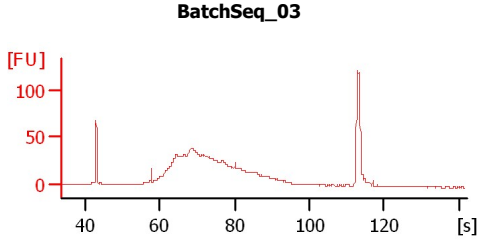
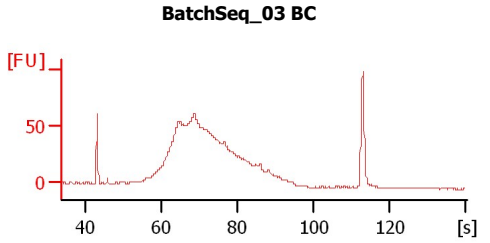
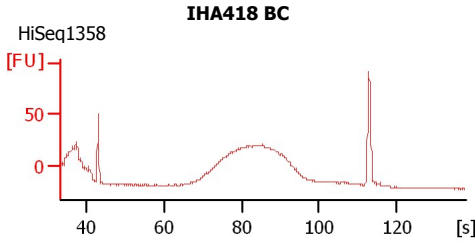
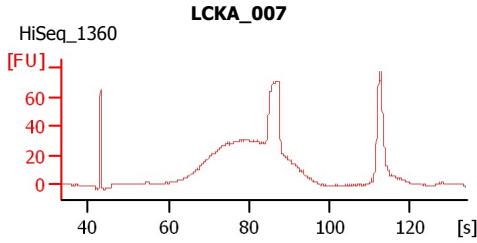
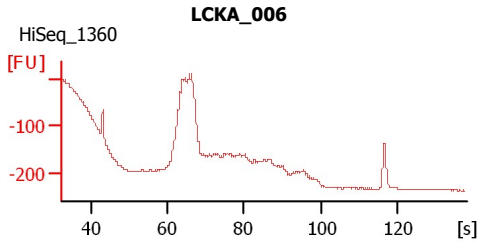
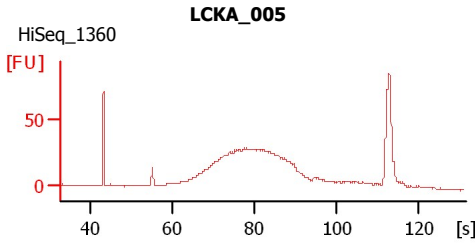
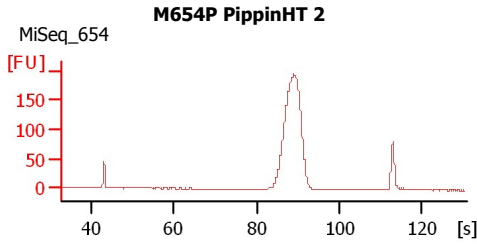
Instrument Name: DE34903152      Firmware: C.01.069  
Serial#: DE34903152      Type: G2938C

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:



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-04-19\2018-04-19\_001.xad

Created: 4/19/2018 11:43:08 AM  
 Modified: 4/19/2018 3:23:41 PM

**Electrophoresis File Run Summary (Chip Summary)**

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
M654P PippinHT 2	MiSeq_654	<input type="checkbox"/>	✓			
LCKA_005	HiSeq_1360	<input type="checkbox"/>	✓			
LCKA_006	HiSeq_1360	<input type="checkbox"/>	✓			
LCKA_007	HiSeq_1360	<input type="checkbox"/>	✓			
IHA418 BC	HiSeq1358	<input type="checkbox"/>	✓			
BatchSeq_03 BC		<input type="checkbox"/>	✓			
BatchSeq_03		<input type="checkbox"/>	✓			
M654P PippinHT 1	MiSeq_654	<input type="checkbox"/>	✓			
M654P PippinHT 2	MiSeq_654	<input type="checkbox"/>	✓			
Oanh_2		<input type="checkbox"/>	✓			
Oanh_15		<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\2018-04-19\2018-04-19\_001.xad

Created: 4/19/2018 11:43:08 AM  
Modified: 4/19/2018 3:23:41 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

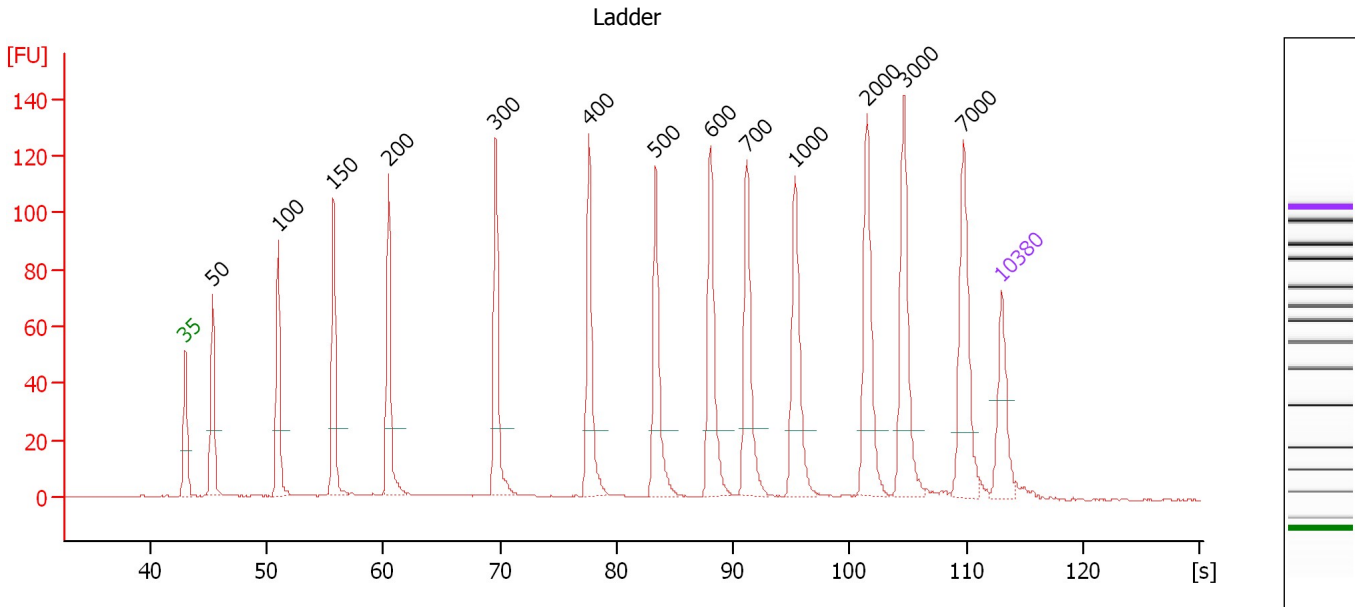
**Ladder**

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

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-04-19\2018-04-19\_001.xad

Created: 4/19/2018 11:43:08 AM  
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**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.2

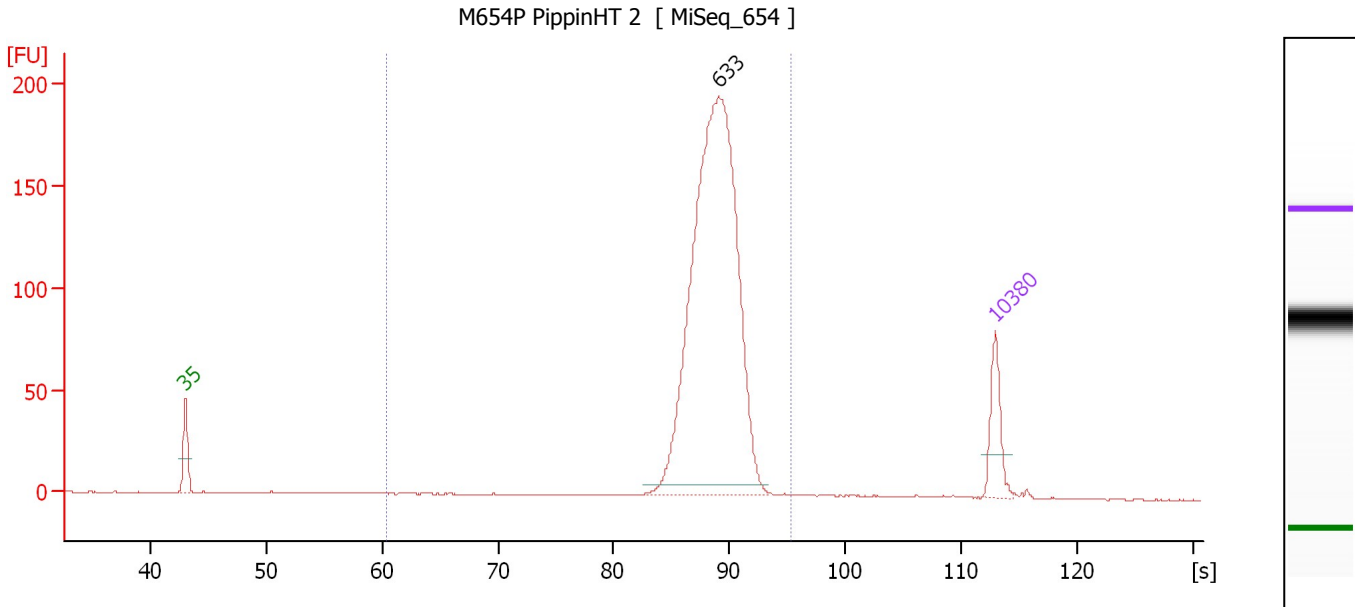
**Peak table for Ladder**

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	50.97
4	150	150.00	1,515.2	Ladder Peak	55.71
5	200	150.00	1,136.4	Ladder Peak	60.45
6	300	150.00	757.6	Ladder Peak	69.62
7	400	150.00	568.2	Ladder Peak	77.63
8	500	150.00	454.5	Ladder Peak	83.34
9	600	150.00	378.8	Ladder Peak	88.04
10	700	150.00	324.7	Ladder Peak	91.17
11	1,000	150.00	227.3	Ladder Peak	95.32
12	2,000	150.00	113.6	Ladder Peak	101.49
13	3,000	150.00	75.8	Ladder Peak	104.66
14	7,000	150.00	32.5	Ladder Peak	109.73
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-04-19\2018-04-19\_001.xad

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**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : M654P PippinHT 2**

Number of peaks found: 1                      Corr. Area 1: 1,081.7  
 Noise: 0.3

**Peak table for sample 1 : M654P PippinHT 2**

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	633	1,390.90	3,330.8		89.06
3	10,380	75.00	10.9	Upper Marker	113.00

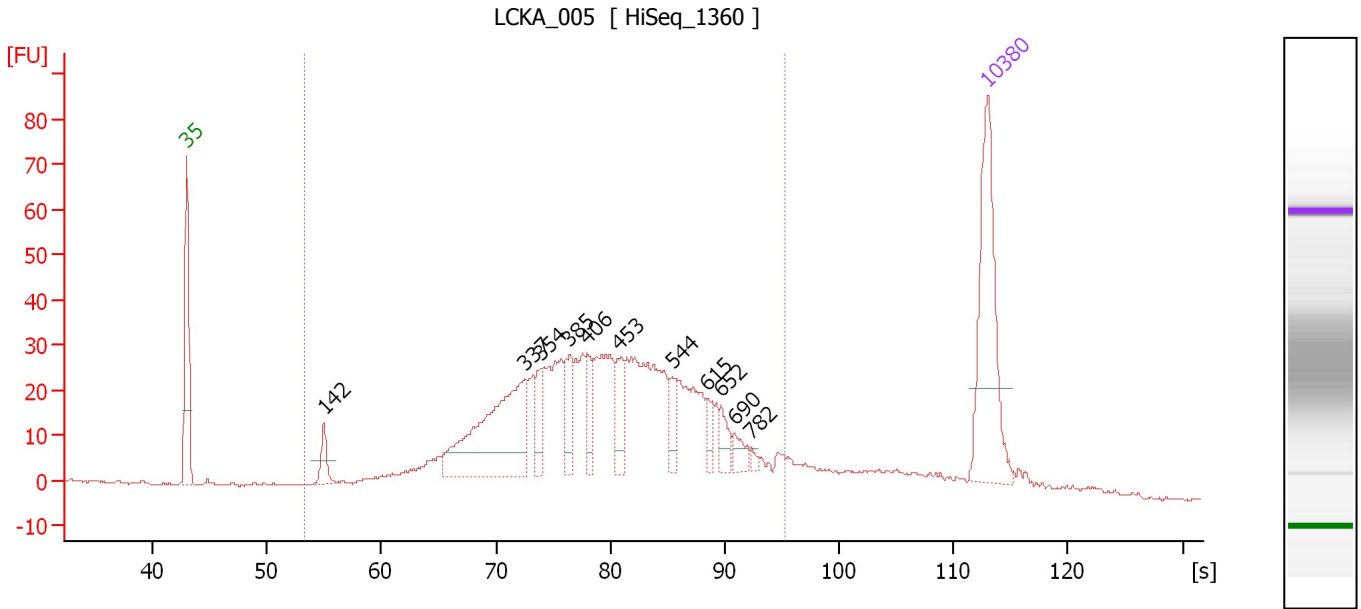
**Region table for sample 1 : M654P PippinHT 2**

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	623	1,468.88	1,081.7	3,656.6	95	10.6

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-04-19\2018-04-19\_001.xad

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**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : LCKA\_005**

Number of peaks found: 11                      Corr. Area 1: 856.6  
 Noise: 0.2

**Peak table for sample 2 : LCKA\_005**

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	142	18.10	193.0		54.96
3	337	128.19	576.9		72.56
4	354	22.48	96.2		73.97
5	385	24.82	97.6		76.45
6	406	18.52	69.2		77.95
7	453	22.66	75.7		80.67
8	544	13.88	38.7		85.41
9	615	9.68	23.8		88.51
10	652	12.06	28.0		89.68
11	690	9.48	20.8		90.86
12	782	2.61	5.1		92.31
13	10,380	75.00	10.9	Upper Marker	113.00

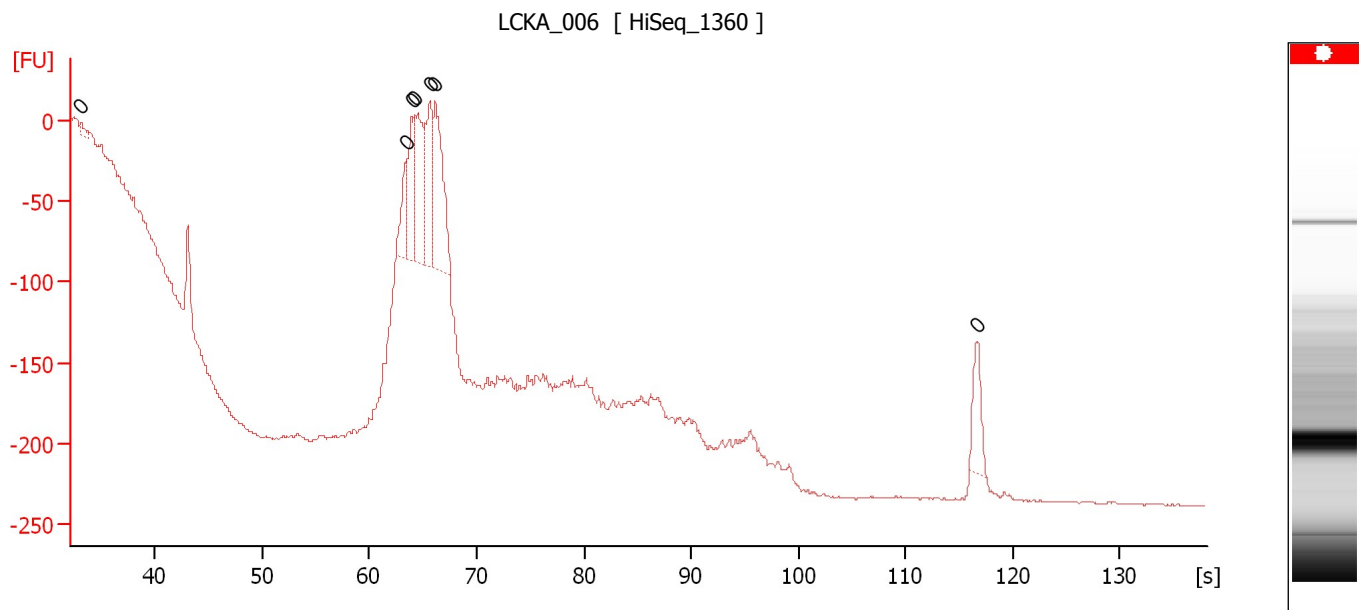
**Region table for sample 2 : LCKA\_005**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
124	1,000	448	775.33	856.6	3,128.1	90	33.1

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2018-04-19\2018-04-19\_001.xad

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Modified: 4/19/2018 3:23:41 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : LCKA\_006**

Number of peaks found: 0      Noise: 0.5

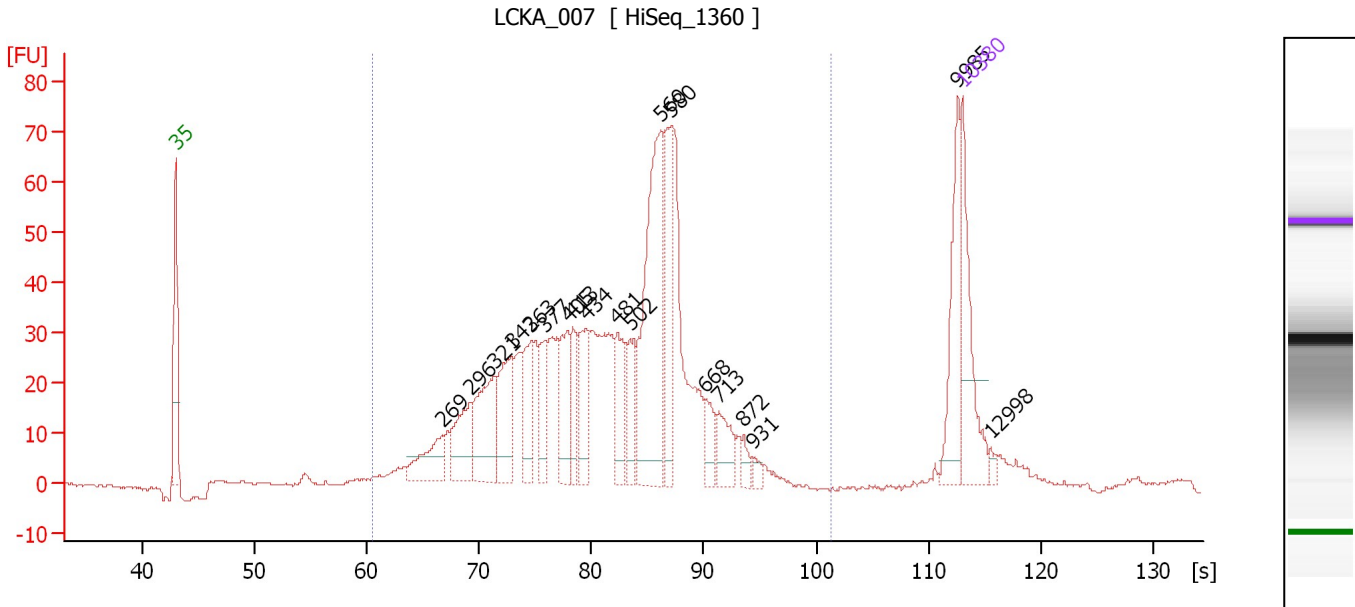
**Peak table for sample 3 : LCKA\_006**

Peak	Size [bp]	Conc. [pg/ $\mu$ l]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	0	0.00	0.0		33.10
2	0	0.00	0.0		63.45
3	0	0.00	0.0		63.95
4	0	0.00	0.0		64.30
5	0	0.00	0.0		65.65
6	0	0.00	0.0		66.15
7	0	0.00	0.0		116.60

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-04-19\2018-04-19\_001.xad

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**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : LCKA\_007**

Number of peaks found: 19                      Corr. Area 1: 1,038.3  
 Noise: 0.3

**Peak table for sample 4 : LCKA\_007**

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	269	55.36	311.6		66.80
3	296	66.52	340.7		69.23
4	321	97.93	461.6		71.33
5	342	79.32	351.7		72.96
6	363	61.53	257.2		74.63
7	377	41.03	164.9		75.78
8	405	58.55	218.9		77.93
9	413	38.65	141.9		78.36
10	434	56.02	195.7		79.55
11	481	57.03	179.5		82.28
12	502	39.15	118.2		83.42
13	560	226.74	613.8		86.15
14	580	86.61	226.2		87.10
15	668	25.82	58.6		90.16
16	713	35.61	75.6		91.35
17	872	11.27	19.6		93.55
18	931	7.26	11.8		94.37
19	9,985	71.56	10.9		112.62
20	10,380	75.00	10.9	Upper Marker	113.00
21	12,998	0.00	0.0		115.53

**Region table for sample 4 : LCKA\_007**

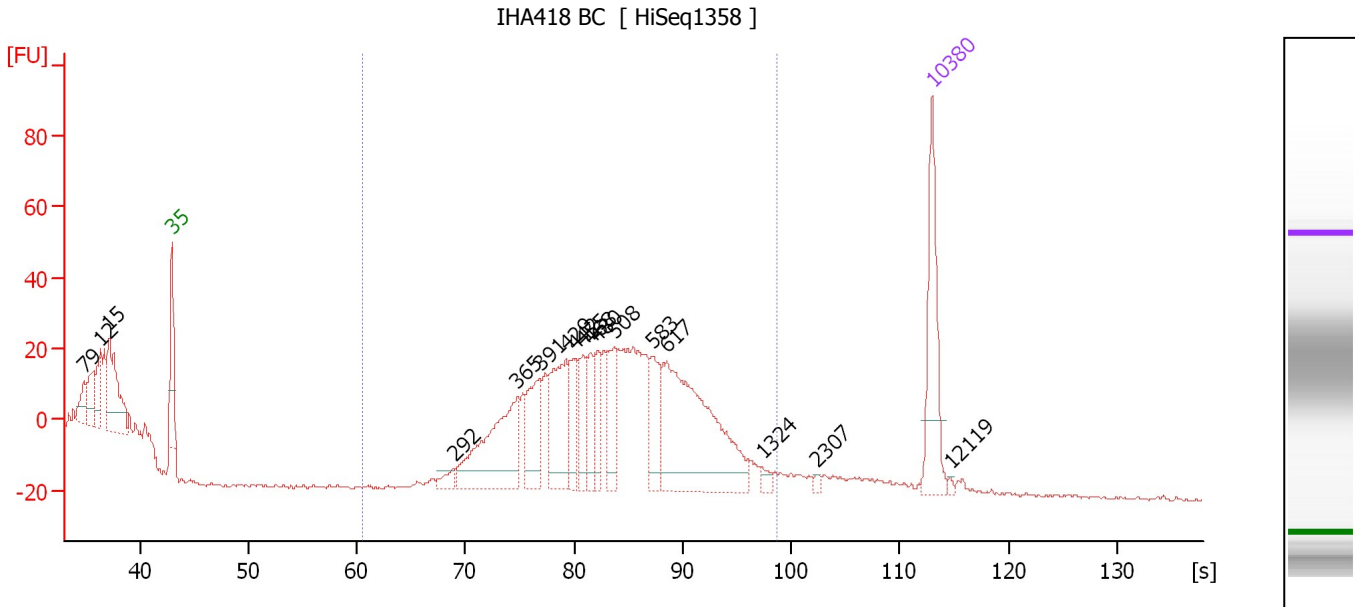
From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,981	482	1,624.72	1,038.3	5,849.2	90	31.7



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-04-19\2018-04-19\_001.xad

Created: 4/19/2018 11:43:08 AM  
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**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : IHA418 BC**

Number of peaks found: 18      Corr. Area 1: 584.5  
 Noise: 0.5

**Peak table for sample 5 : IHA418 BC**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	7	0.00	0.0		34.89
2	9	0.00	0.0		35.63
3	12	0.00	0.0		36.32
4	15	0.00	0.0		37.16
5	35	125.00	5,411.3	Lower Marker	43.00
6	292	13.34	69.1		68.92
7	365	146.82	609.8		74.81
8	391	65.46	253.9		76.89
9	429	99.02	350.1		79.26
10	442	37.39	128.3		80.00
11	455	37.91	126.1		80.80
12	468	35.28	114.1		81.54
13	480	35.75	112.9		82.18
14	508	51.83	154.6		83.71
15	583	47.70	124.0		87.23
16	617	229.73	564.4		88.56
17	1,324	6.61	7.6		97.32
18	2,307	3.28	2.2		102.46
19	10,380	75.00	10.9	Upper Marker	113.00
20	12,119	0.00	0.0		114.68

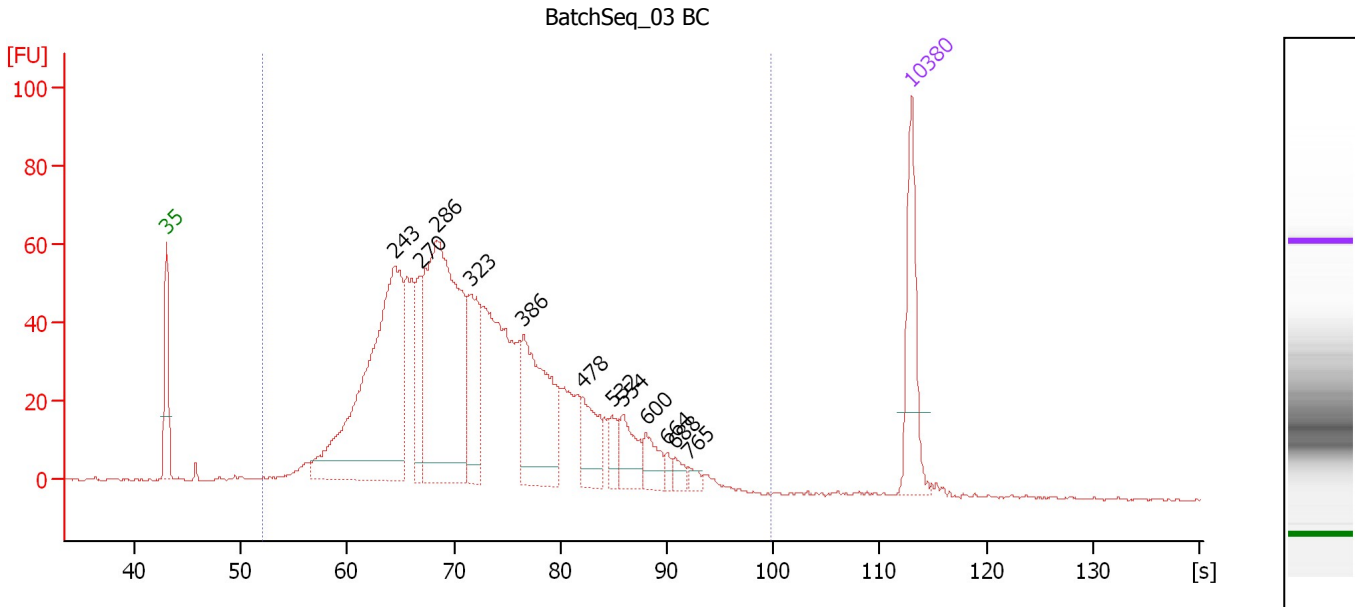
**Region table for sample 5 : IHA418 BC**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,533	537	657.82	584.5	2,005.1	81	25.4

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-04-19\2018-04-19\_001.xad

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**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : BatchSeq\_03 BC**

Number of peaks found: 12                      Corr. Area 1: 1,569.7  
 Noise: 0.3

**Peak table for sample 6 : BatchSeq\_03 BC**

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	243	491.41	3,058.7		64.43
3	270	70.40	395.3		66.85
4	286	442.11	2,339.3		68.37
5	323	108.12	506.5		71.49
6	386	178.56	700.3		76.54
7	478	57.93	183.6		82.09
8	532	21.88	62.3		84.86
9	554	42.56	116.5		85.87
10	600	29.10	73.5		88.04
11	664	7.71	17.6		90.05
12	688	11.63	25.6		90.81
13	765	8.05	15.9		92.07
14	10,380	75.00	10.9	Upper Marker	113.00

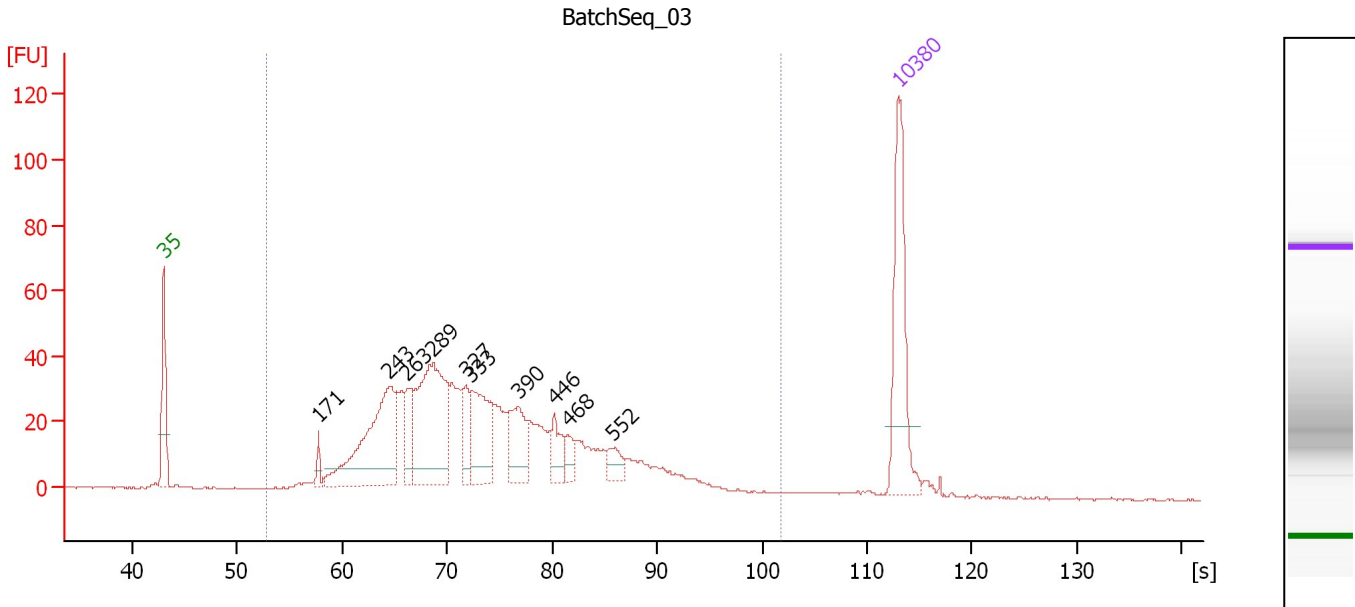
**Region table for sample 6 : BatchSeq\_03 BC**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
112	1,736	347	2,034.13	1,569.7	10,449.8	99	36.9

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-04-19\2018-04-19\_001.xad

Created: 4/19/2018 11:43:08 AM  
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**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : BatchSeq\_03**

Number of peaks found: 10                      Corr. Area 1: 993.7  
 Noise: 0.2

**Peak table for sample 7 : BatchSeq\_03**

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	171	9.40	83.1		57.74
3	243	151.06	940.0		64.44
4	263	30.08	173.3		66.23
5	289	151.82	795.2		68.64
6	327	23.84	110.4		71.81
7	333	70.99	322.9		72.27
8	390	43.38	168.6		76.82
9	446	21.10	71.7		80.25
10	468	11.64	37.6		81.53
11	552	14.34	39.4		85.78
12	10,380	75.00	10.9	Upper Marker	113.00

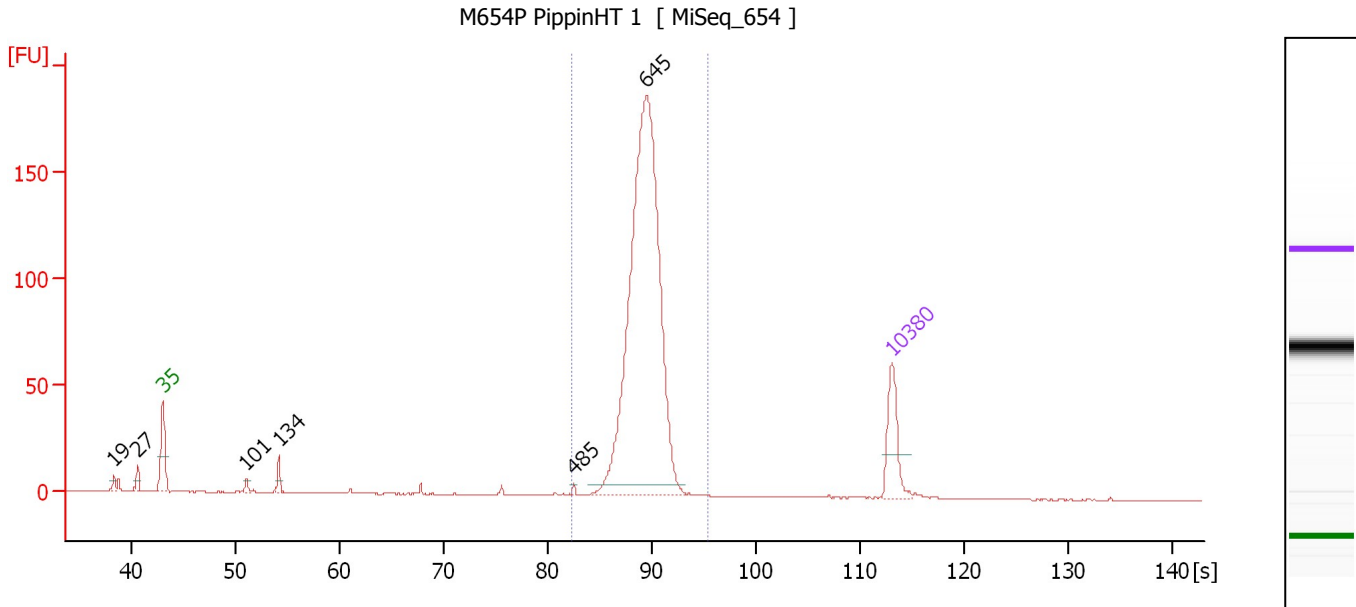
**Region table for sample 7 : BatchSeq\_03**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
120	2,076	378	866.95	993.7	4,214.0	98	47.0

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-04-19\2018-04-19\_001.xad

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 Modified: 4/19/2018 3:23:41 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : M654P PippinHT 1**

Number of peaks found: 6                      Corr. Area 1: 705.4  
 Noise: 0.2

**Peak table for sample 8 : M654P PippinHT 1**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	19	0.00	0.0		38.31
2	27	0.00	0.0		40.58
3	35	125.00	5,411.3	Lower Marker	43.00
4	101	9.67	145.3		51.04
5	134	21.81	246.8		54.19
6	485	3.53	11.0		82.48
7	645	1,108.90	2,605.6		89.44
8	10,380	75.00	10.9	Upper Marker	113.00

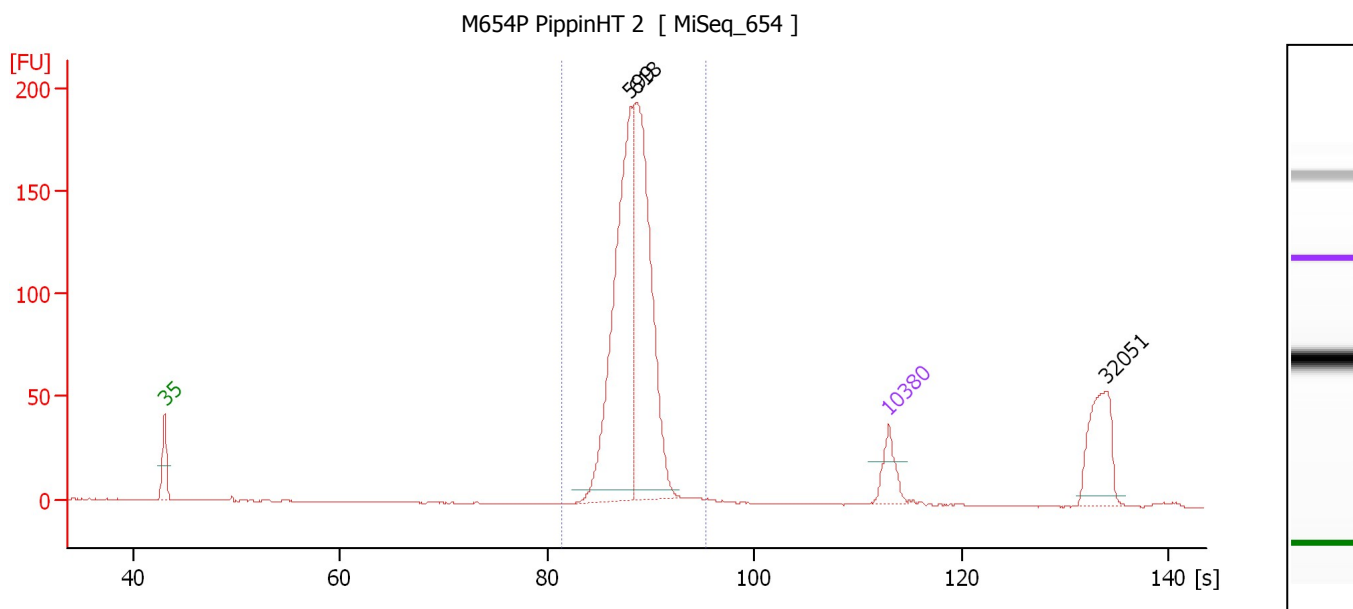
**Region table for sample 8 : M654P PippinHT 1**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
480	1,000	640	1,122.98	705.4	2,670.6	94	7.0

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-04-19\2018-04-19\_001.xad

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Electropherogram Summary Continued ...



Overall Results for sample 9 : **M654P PippinHT 2**

Number of peaks found: 3                      Corr. Area 1: 912.7  
 Noise: 0.2

Peak table for sample 9 : **M654P PippinHT 2**

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	599	930.91	2,355.0		87.99
3	618	935.67	2,293.0		88.61
4	10,380	75.00	10.9	Upper Marker	113.00
5	32,051	0.00	0.0		133.96

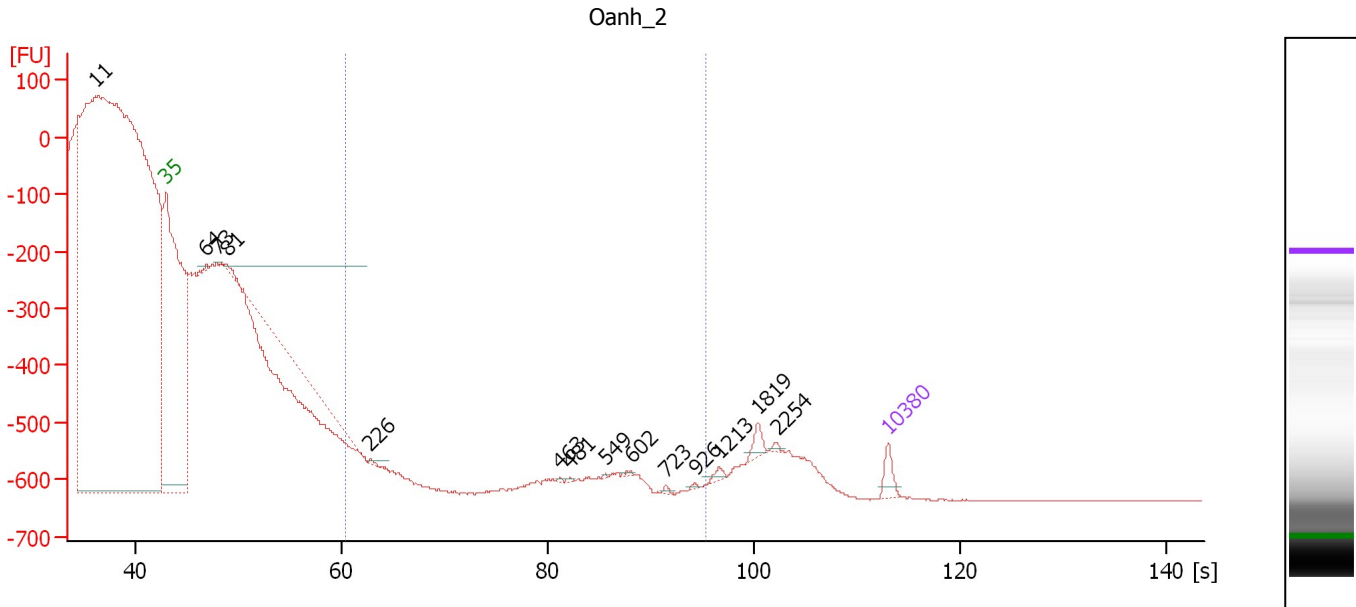
Region table for sample 9 : **M654P PippinHT 2**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
467	1,000	614	1,943.36	912.7	4,821.5	87	8.3

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-04-19\2018-04-19\_001.xad

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**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : Oanh\_2**

Number of peaks found: 14                      Corr. Area 1: 0.0  
 Noise: 0.3

**Peak table for sample 10 : Oanh\_2**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	11	0.00	0.0		36.19
2	35	125.00	5,411.3	Lower Marker	43.00
3	64	20.35	483.5		46.90
4	73	6.02	124.8		47.94
5	81	38.73	721.3		48.87
6	226	15.75	105.8		62.80
7	463	5.28	17.3		81.25
8	481	8.22	25.9		82.24
9	549	4.14	11.4		85.67
10	602	8.88	22.3		88.11
11	723	10.79	22.6		91.49
12	926	8.74	14.3		94.29
13	1,213	25.78	32.2		96.63
14	1,819	56.86	47.4		100.37
15	2,254	11.26	7.6		102.29
16	10,380	75.00	10.9	Upper Marker	113.00

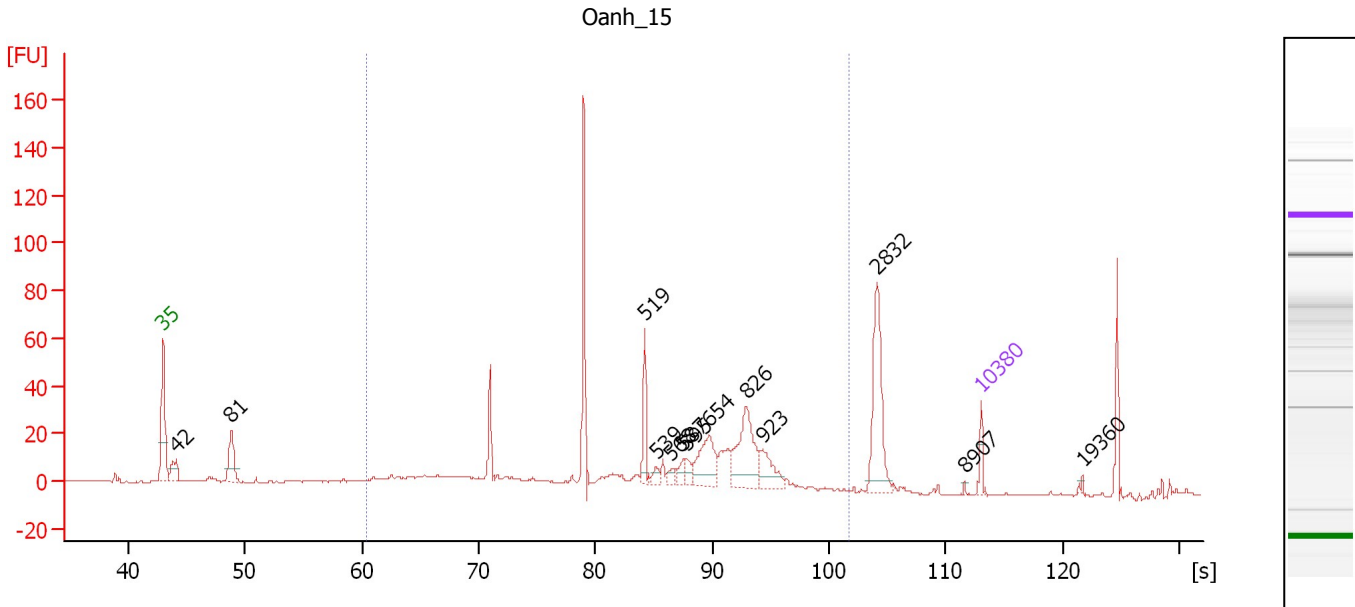
**Region table for sample 10 : Oanh\_2**

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	0	0.00	0.0	0.0	0	0.0

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-04-19\2018-04-19\_001.xad

Created: 4/19/2018 11:43:08 AM  
 Modified: 4/19/2018 3:23:41 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : Oanh 15**

Number of peaks found: 13      Corr. Area 1: 400.0  
 Noise: 0.3

**Peak table for sample 11 : Oanh 15**

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	42	243.77	8,846.5		44.06
3	81	424.66	7,939.2		48.84
4	519	232.57	679.1		84.23
5	539	60.77	170.7		85.19
6	568	65.42	174.6		86.53
7	587	91.30	235.5		87.45
8	595	78.97	201.0		87.81
9	654	422.76	978.8		89.74
10	826	652.17	1,196.0		92.91
11	923	246.42	404.7		94.25
12	2,832	661.18	353.8		104.13
13	8,907	9.31	1.6		111.58
14	10,380	75.00	10.9	Upper Marker	113.00
15	19,360	0.00	0.0		121.69

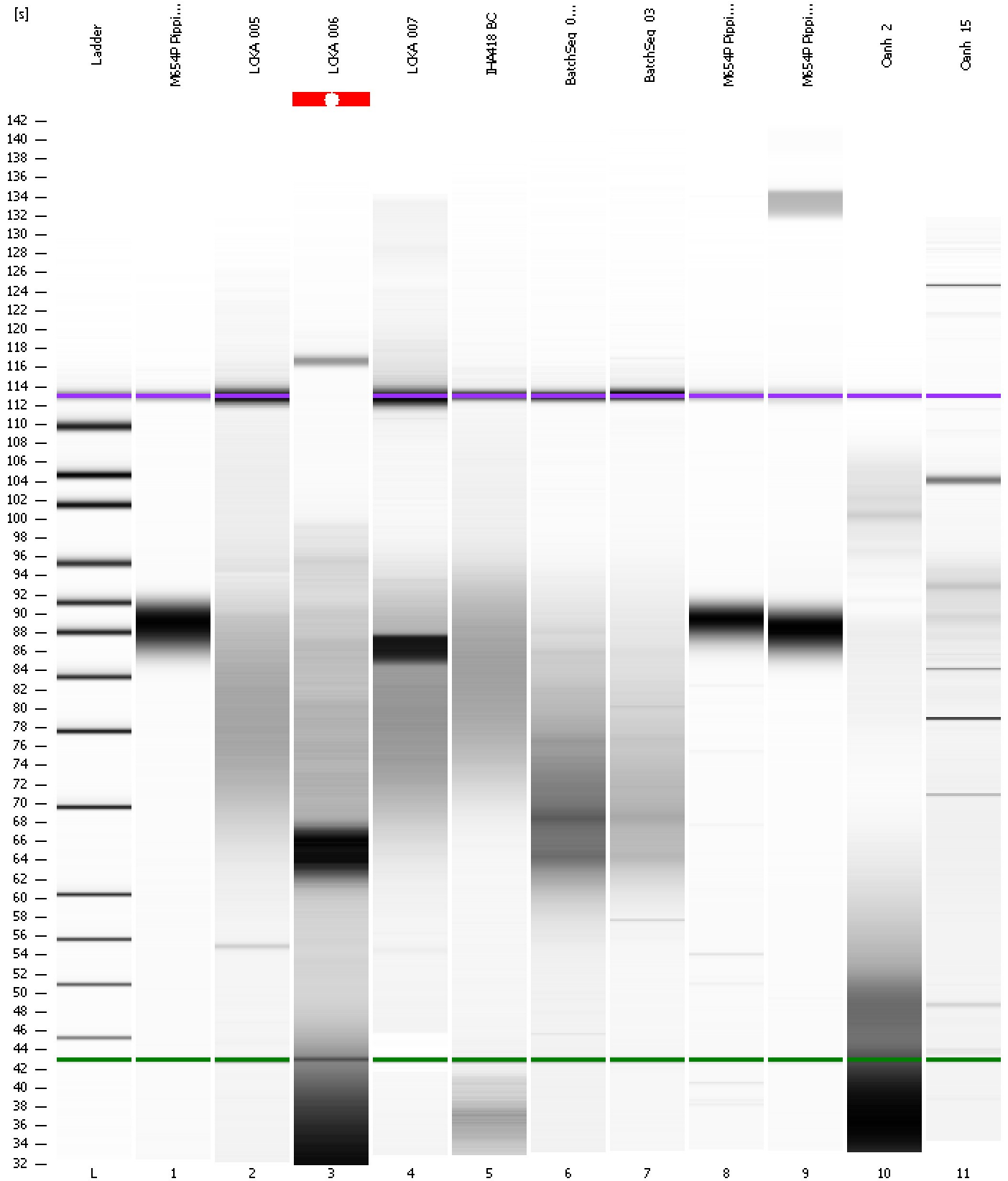
**Region table for sample 11 : Oanh 15**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	2,040	590	4,651.49	400.0	15,535.5	69	40.5

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2018-04-19\2018-04-19\_001.xad

Created: 4/19/2018 11:43:08 AM  
Modified: 4/19/2018 3:23:41 PM

Gel Image





Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2018-04-19\2018-04-19\_001.xad

Created: 4/19/2018 11:43:08 AM  
Modified: 4/19/2018 3:23:41 PM

**Curves**

**Standard Curve**

