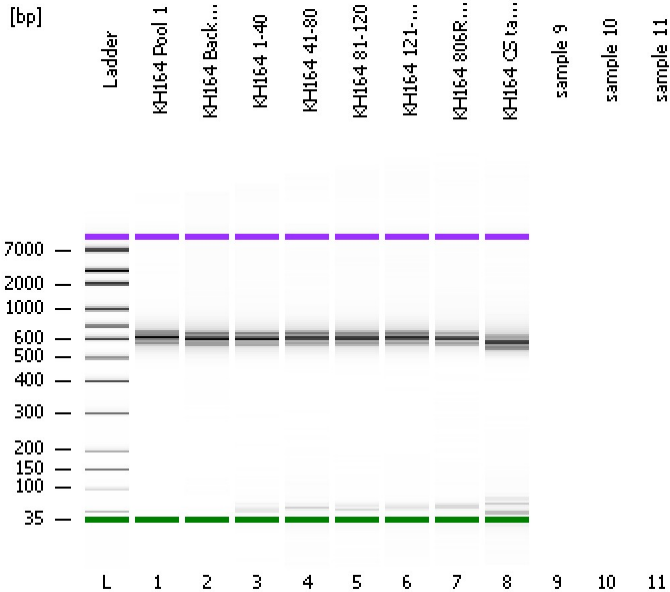


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2017-10-04\2017-10-04\_001.xad

Created: 10/4/2017 9:15:17 AM  
Modified: 10/4/2017 9:48:04 AM

**Electrophoresis File Run Summary**



Instrument Information:

Instrument Name: DE13701086      Firmware: C.01.069  
Serial#: DE13701086      Type: G2938B

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

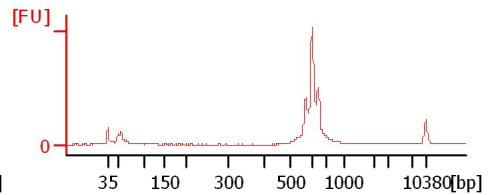
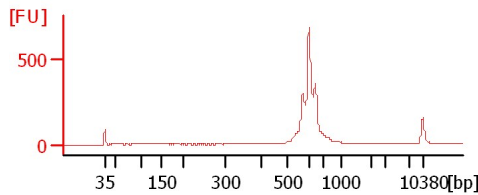
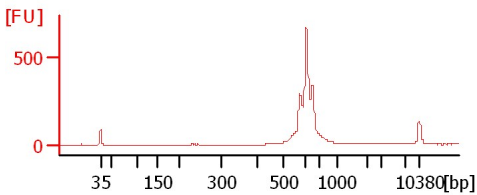
Chip Information:

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

**KH164 Pool 1**

**KH164 Backup Pool 2**

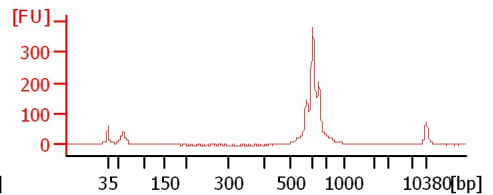
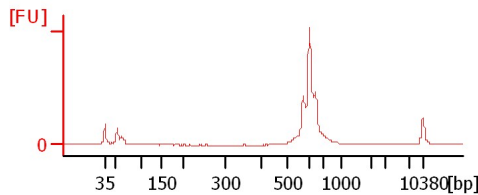
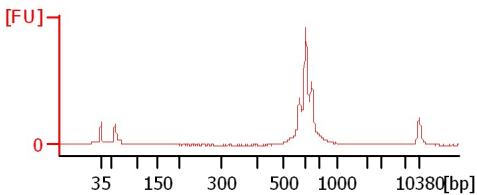
**KH164 1-40**



**KH164 41-80**

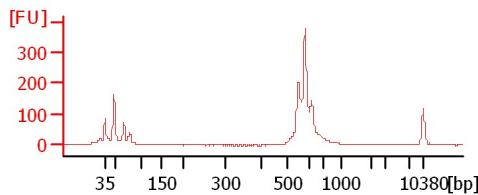
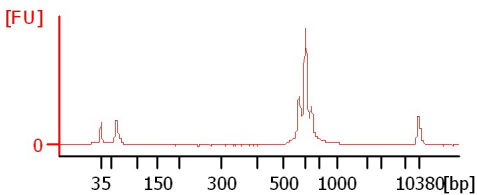
**KH164 81-120**

**KH164 121-164**



**KH164 806R NV test**

**KH164 CS tags test**



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-10-04\2017-10-04\_001.xad

Created: 10/4/2017 9:15:17 AM  
 Modified: 10/4/2017 9:48:04 AM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
KH164 Pool 1		<input type="checkbox"/>	✓			
KH164 Backup Pool 2		<input type="checkbox"/>	✓			
KH164 1-40		<input type="checkbox"/>	✓			
KH164 41-80		<input type="checkbox"/>	✓			
KH164 81-120		<input type="checkbox"/>	✓			
KH164 121-164		<input type="checkbox"/>	✓			
KH164 806R NV test		<input type="checkbox"/>	✓			
KH164 CS tags test		<input type="checkbox"/>	✓			
sample 9		<input type="checkbox"/>				
sample 10		<input type="checkbox"/>				
sample 11		<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\2017-10-04\2017-10-04\_001.xad

Created: 10/4/2017 9:15:17 AM  
Modified: 10/4/2017 9:48:04 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

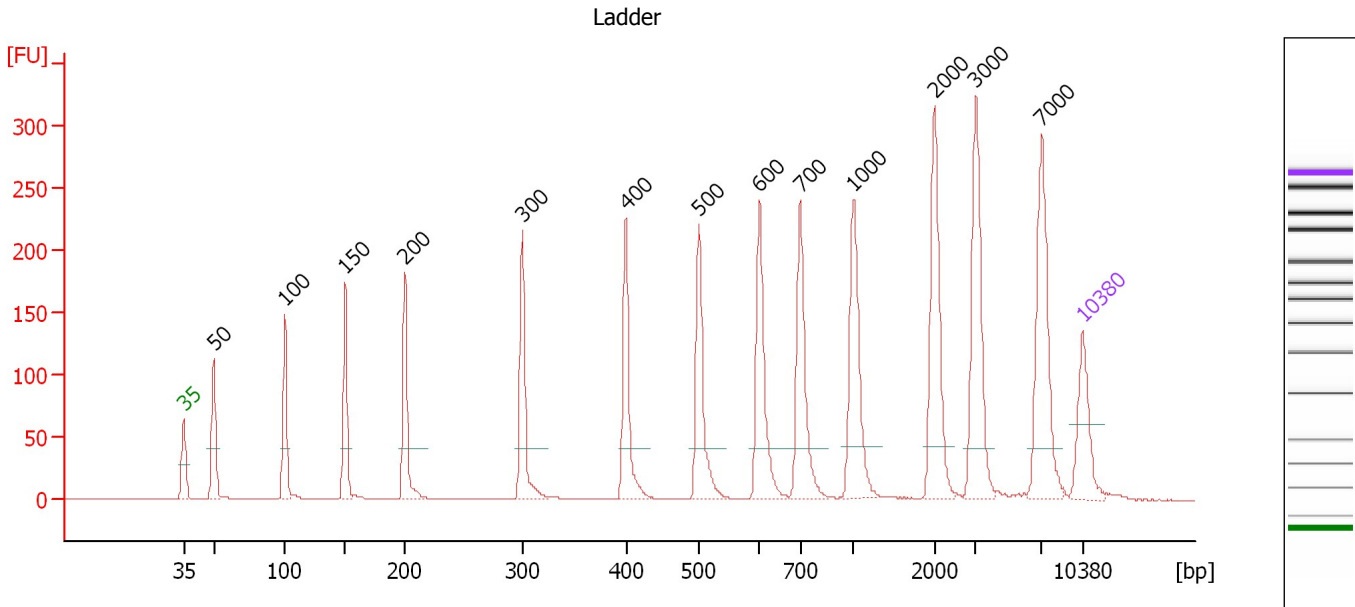
**Ladder**

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\2017-10-04\2017-10-04\_001.xad

Created: 10/4/2017 9:15:17 AM  
 Modified: 10/4/2017 9:48:04 AM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.2

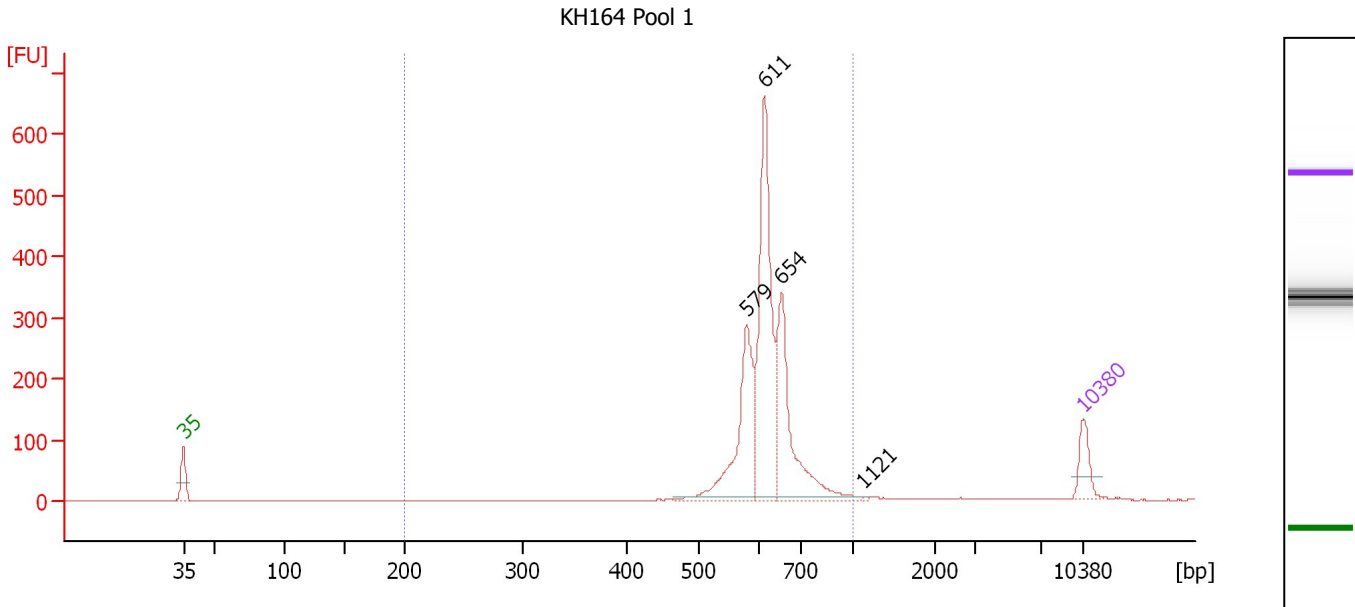
**Peak table for Ladder**

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	45.34
3	100	150.00	2,272.7	Ladder Peak	50.87
4	150	150.00	1,515.2	Ladder Peak	55.59
5	200	150.00	1,136.4	Ladder Peak	60.26
6	300	150.00	757.6	Ladder Peak	69.39
7	400	150.00	568.2	Ladder Peak	77.44
8	500	150.00	454.5	Ladder Peak	83.15
9	600	150.00	378.8	Ladder Peak	87.86
10	700	150.00	324.7	Ladder Peak	91.02
11	1,000	150.00	227.3	Ladder Peak	95.18
12	2,000	150.00	113.6	Ladder Peak	101.49
13	3,000	150.00	75.8	Ladder Peak	104.69
14	7,000	150.00	32.5	Ladder Peak	109.84
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-10-04\2017-10-04\_001.xad

Created: 10/4/2017 9:15:17 AM  
 Modified: 10/4/2017 9:48:04 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : KH164 Pool 1**

Number of peaks found: 4                      Corr. Area 1: 1,789.2  
 Noise: 0.1

**Peak table for sample 1 : KH164 Pool 1**

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	579	435.49	1,140.2		86.86
3	611	682.00	1,690.5		88.22
4	654	449.96	1,042.0		89.58
5	1,121	2.49	3.4		95.94
6	10,380	75.00	10.9	Upper Marker	113.00

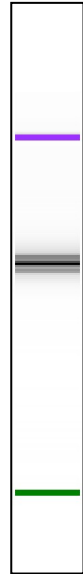
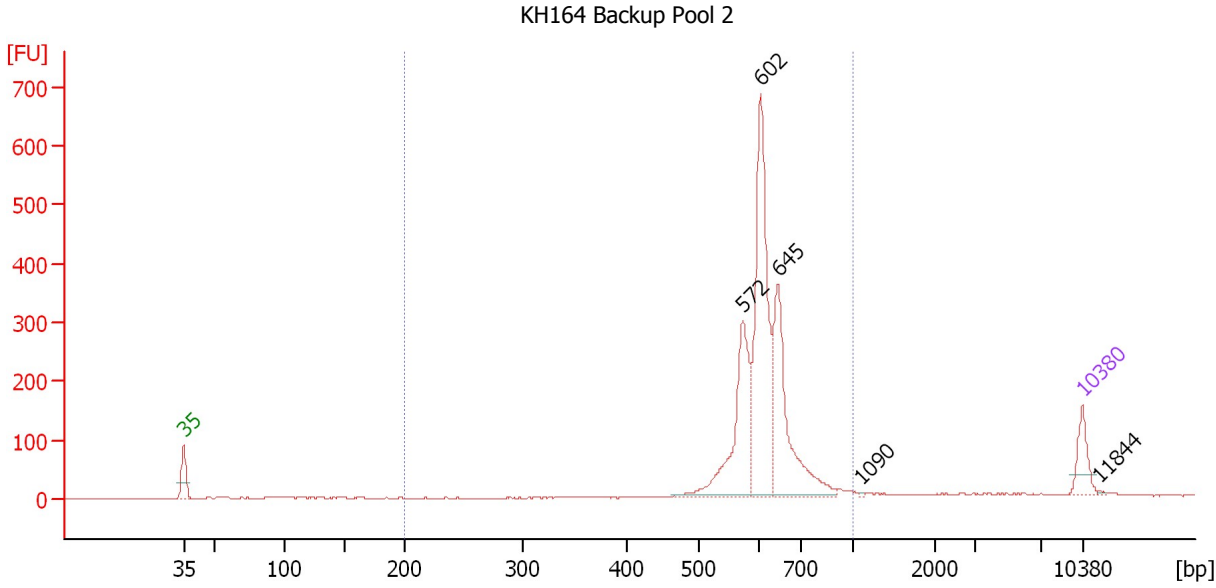
**Region table for sample 1 : KH164 Pool 1**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	623	1,789.2	3,811.6	1,553.76	97	9.8

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2017-10-04\2017-10-04\_001.xad

Created: 10/4/2017 9:15:17 AM  
Modified: 10/4/2017 9:48:04 AM

Electropherogram Summary Continued ...



Overall Results for sample 2 : **KH164 Backup Pool 2**

Number of peaks found: 5                                  Corr. Area 1: 1,909.2  
Noise: 0.5

Peak table for sample 2 : **KH164 Backup Pool 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	572	410.69	1,087.1		86.56
3	602	642.53	1,616.9		87.93
4	645	435.26	1,021.8		89.30
5	1,090	3.00	4.2		95.74
6	10,380	75.00	10.9	Upper Marker	113.00
7	11,844	0.00	0.0		114.37

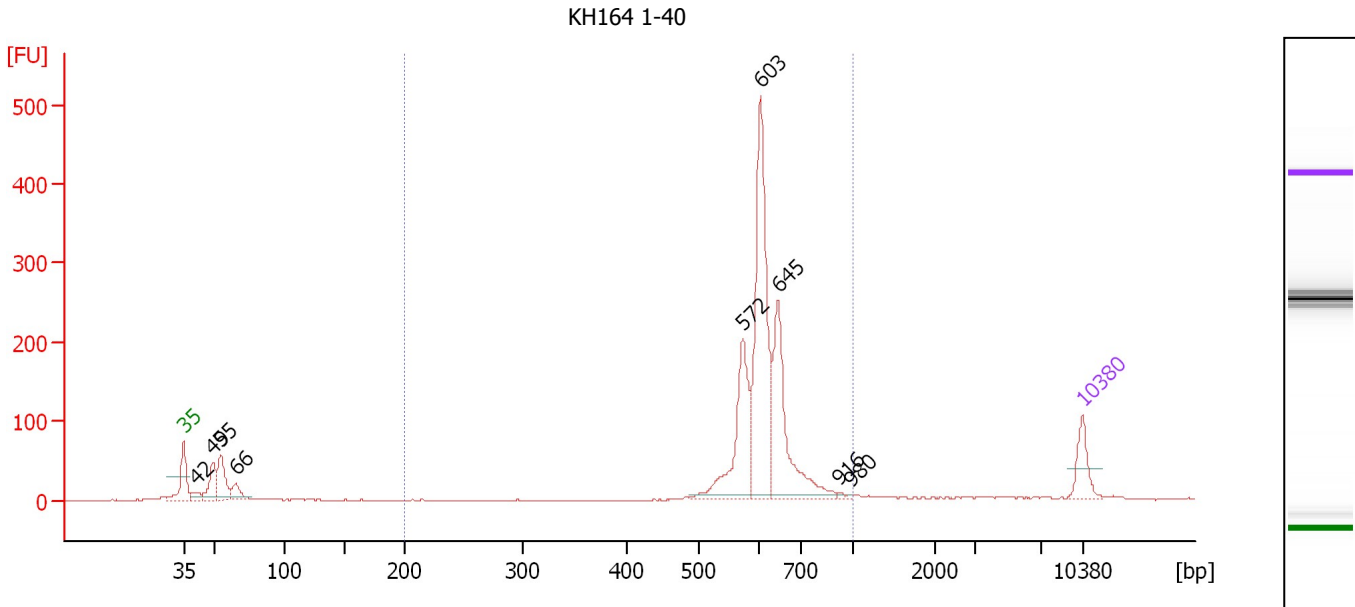
Region table for sample 2 : **KH164 Backup Pool 2**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	617	1,909.2	3,719.0	1,501.77	95	10.1

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-10-04\2017-10-04\_001.xad

Created: 10/4/2017 9:15:17 AM  
 Modified: 10/4/2017 9:48:04 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : KH164 1-40**

Number of peaks found: 9                      Corr. Area 1: 1,232.0  
 Noise: 0.8

**Peak table for sample 3 : KH164 1-40**

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	34.04	1,230.3		44.08
3	49	124.19	3,808.0		45.25
4	55	165.52	4,572.1		45.87
5	66	65.84	1,516.1		47.09
6	572	353.12	935.0		86.55
7	603	664.81	1,671.6		87.95
8	645	418.94	983.8		89.29
9	916	4.77	7.9		94.01
10	980	3.22	5.0		94.91
11	10,380	75.00	10.9	Upper Marker	113.00

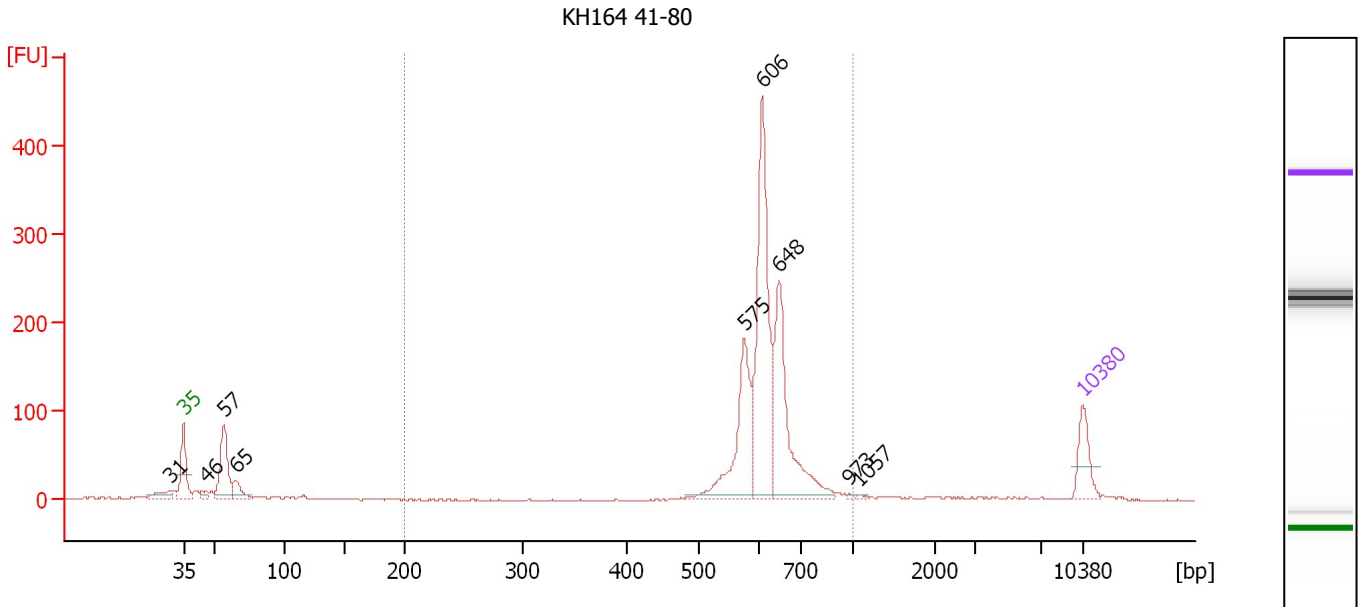
**Region table for sample 3 : KH164 1-40**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	616	1,232.0	3,572.0	1,442.71	84	9.1

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-10-04\2017-10-04\_001.xad

Created: 10/4/2017 9:15:17 AM  
 Modified: 10/4/2017 9:48:04 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : KH164 41-80**

Number of peaks found: 9                      Corr. Area 1: 1,165.9  
 Noise: 0.7

**Peak table for sample 4 : KH164 41-80**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	31	0.00	0.0		41.90
2	35	125.00	5,411.3	Lower Marker	43.00
3	46	23.28	763.2		44.75
4	57	215.80	5,723.7		46.13
5	65	65.52	1,517.3		47.04
6	575	297.27	783.9		86.66
7	606	543.42	1,359.5		88.04
8	648	380.62	890.1		89.38
9	973	3.62	5.6		94.80
10	1,057	4.09	5.9		95.53
11	10,380	75.00	10.9	Upper Marker	113.00

**Region table for sample 4 : KH164 41-80**

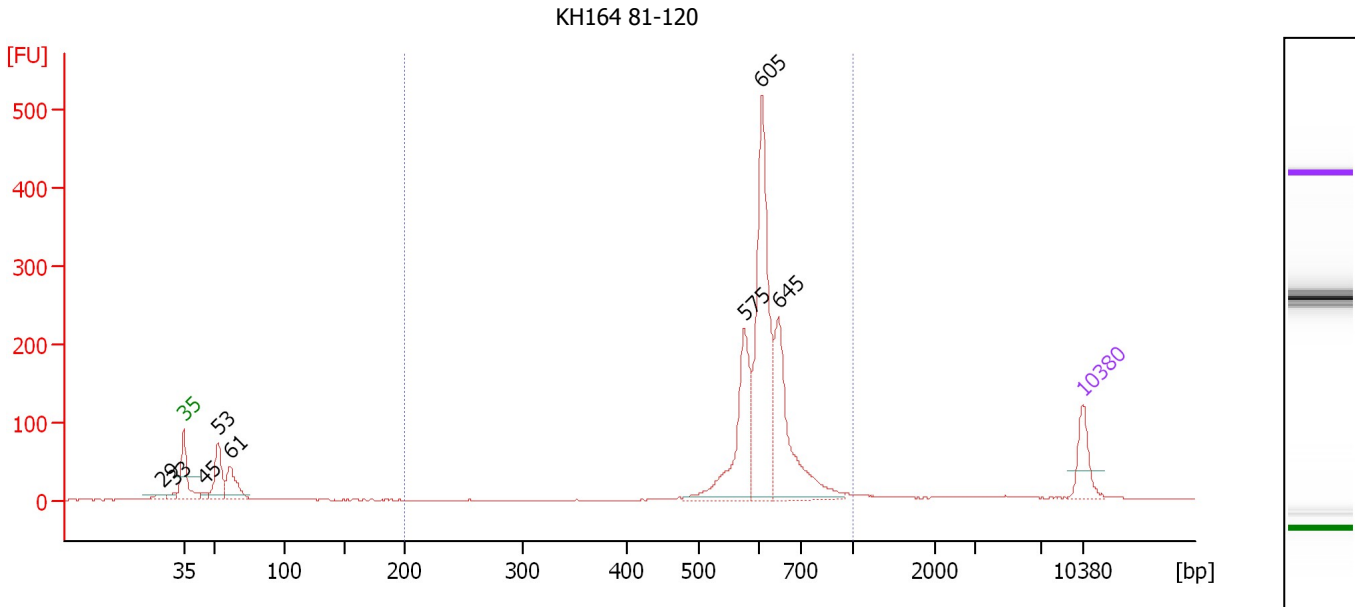
From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	622	1,165.9	3,022.7	1,231.04	79	9.8



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-10-04\2017-10-04\_001.xad

Created: 10/4/2017 9:15:17 AM  
 Modified: 10/4/2017 9:48:04 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : KH164 81-120**

Number of peaks found: 8                      Corr. Area 1: 1,331.7  
 Noise: 0.6

**Peak table for sample 5 : KH164 81-120**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	29	0.00	0.0		41.41
2	33	0.00	0.0		42.35
3	35	125.00	5,411.3	Lower Marker	43.00
4	45	17.00	569.9		44.59
5	53	155.77	4,420.3		45.71
6	61	126.68	3,125.2		46.60
7	575	314.76	829.8		86.67
8	605	572.12	1,432.2		88.03
9	645	348.31	817.9		89.29
10	10,380	75.00	10.9	Upper Marker	113.00

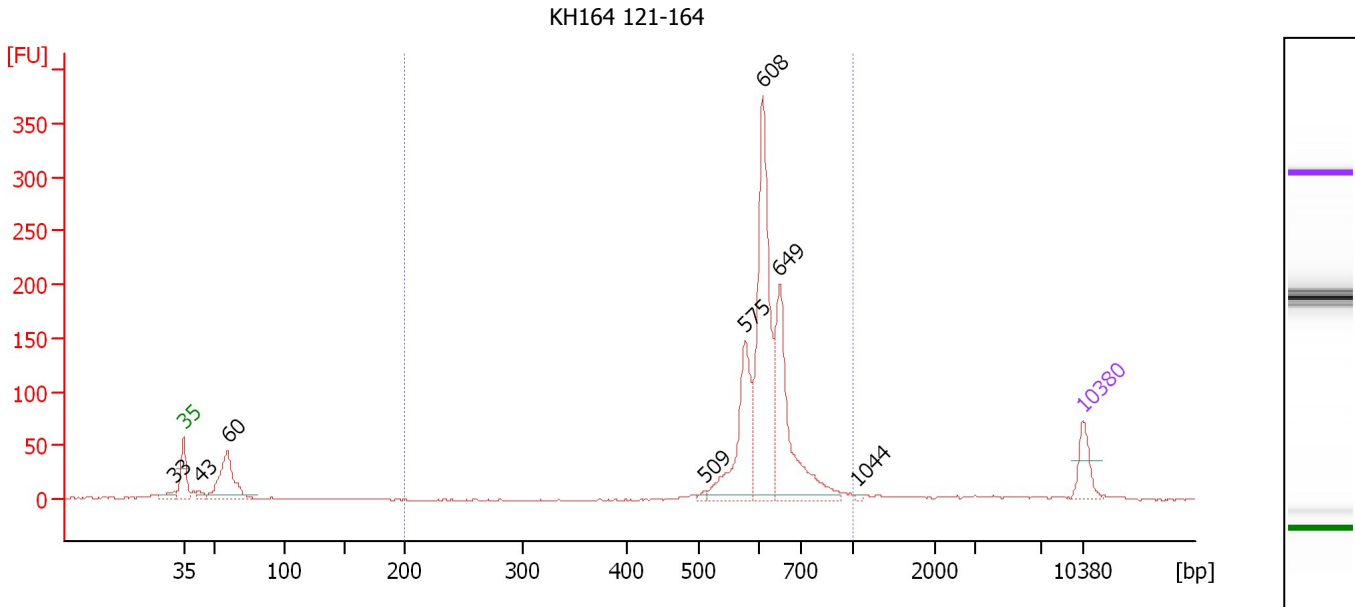
**Region table for sample 5 : KH164 81-120**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	621	1,331.7	3,017.2	1,225.31	81	10.0

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-10-04\2017-10-04\_001.xad

Created: 10/4/2017 9:15:17 AM  
 Modified: 10/4/2017 9:48:04 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : KH164 121-164**

Number of peaks found: 8                      Corr. Area 1: 962.5  
 Noise: 0.5

**Peak table for sample 6 : KH164 121-164**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	33	0.00	0.0		42.29
2	35	125.00	5,411.3	Lower Marker	43.00
3	43	26.19	924.2		44.24
4	60	313.43	7,938.6		46.42
5	509	8.41	25.1		83.56
6	575	336.74	886.8		86.70
7	608	654.59	1,630.2		88.13
8	649	453.38	1,058.4		89.41
9	1,044	5.41	7.9		95.45
10	10,380	75.00	10.9	Upper Marker	113.00

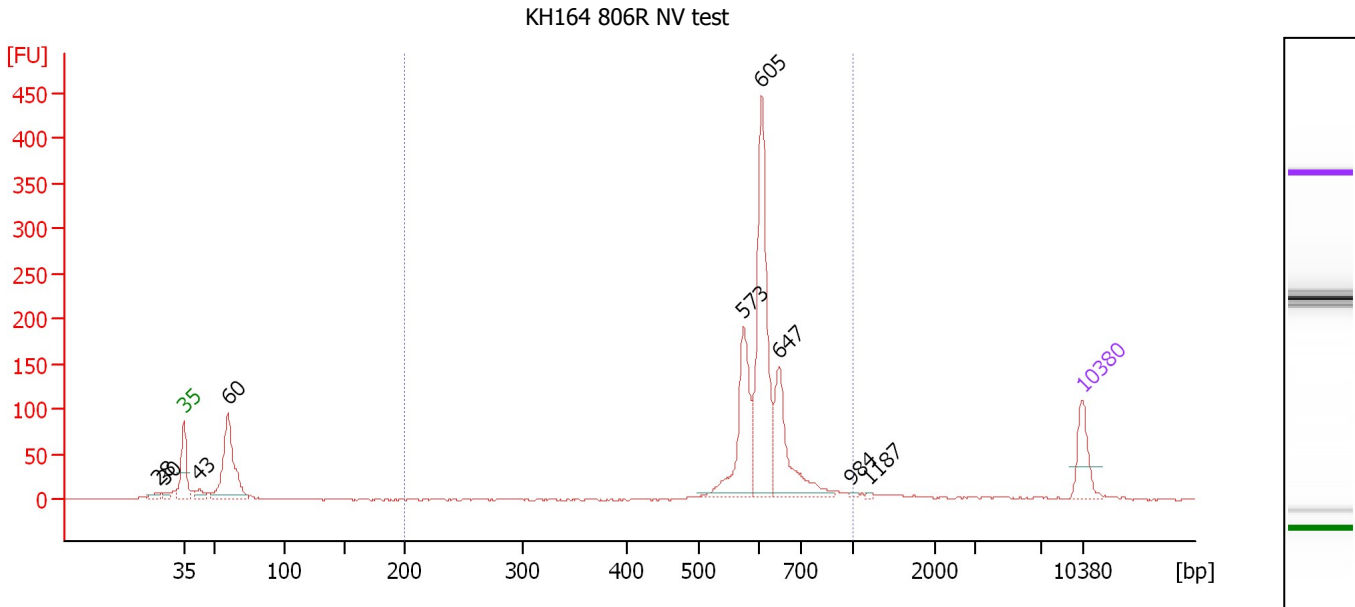
**Region table for sample 6 : KH164 121-164**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	625	962.5	3,526.0	1,441.23	82	9.9

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-10-04\2017-10-04\_001.xad

Created: 10/4/2017 9:15:17 AM  
 Modified: 10/4/2017 9:48:04 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : KH164 806R NV test**

Number of peaks found: 9                      Corr. Area 1: 946.6  
 Noise: 0.7

**Peak table for sample 7 : KH164 806R NV test**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	28	0.00	0.0		40.97
2	30	0.00	0.0		41.55
3	35	125.00	5,411.3	Lower Marker	43.00
4	43	31.43	1,114.0		44.21
5	60	343.92	8,646.2		46.47
6	573	251.90	665.6		86.61
7	605	464.69	1,164.5		88.01
8	647	221.01	517.2		89.36
9	984	4.74	7.3		94.96
10	1,187	2.86	3.7		96.36
11	10,380	75.00	10.9	Upper Marker	113.00

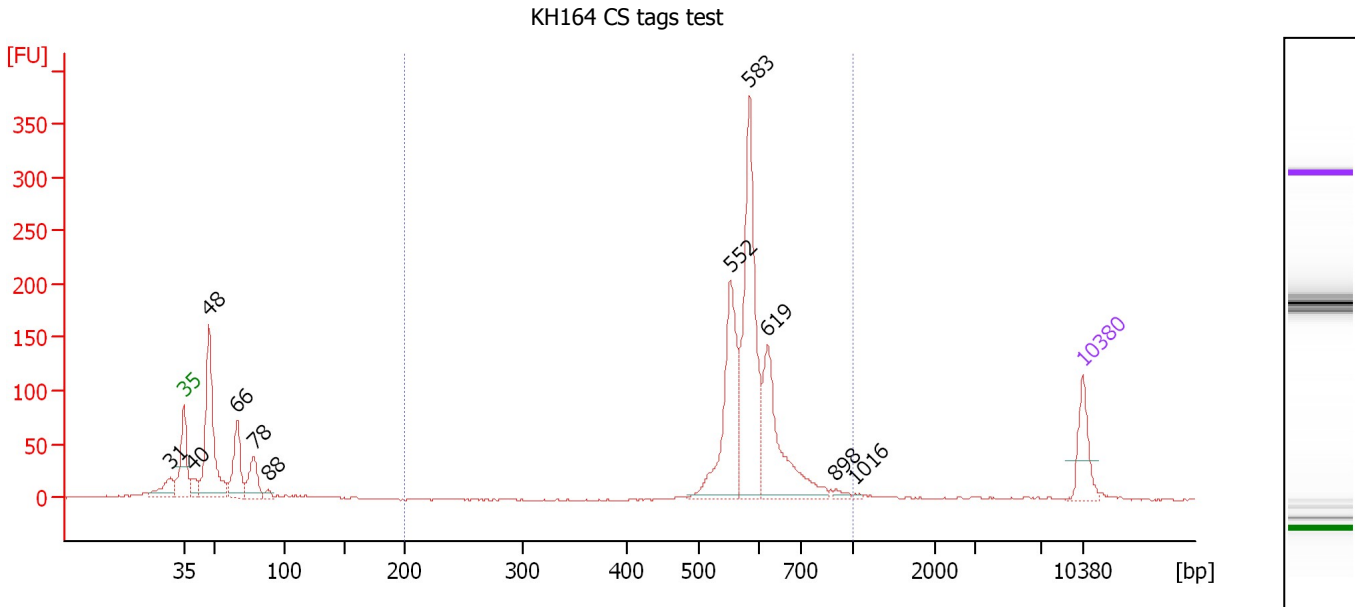
**Region table for sample 7 : KH164 806R NV test**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	619	946.6	2,422.2	981.00	74	10.4

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-10-04\2017-10-04\_001.xad

Created: 10/4/2017 9:15:17 AM  
 Modified: 10/4/2017 9:48:04 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : KH164 CS tags test**

Number of peaks found: 11                      Corr. Area 1: 1,016.1  
 Noise: 0.6

**Peak table for sample 8 : KH164 CS tags test**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	31	0.00	0.0		41.97
2	35	125.00	5,411.3	Lower Marker	43.00
3	40	45.70	1,743.6		43.73
4	48	451.97	14,395.0		44.96
5	66	172.59	3,933.9		47.16
6	78	110.58	2,136.8		48.48
7	88	15.37	264.2		49.56
8	552	342.20	939.8		85.59
9	583	469.04	1,219.3		87.06
10	619	282.27	690.5		88.48
11	898	10.94	18.5		93.76
12	1,016	4.39	6.5		95.28
13	10,380	75.00	10.9	Upper Marker	113.00

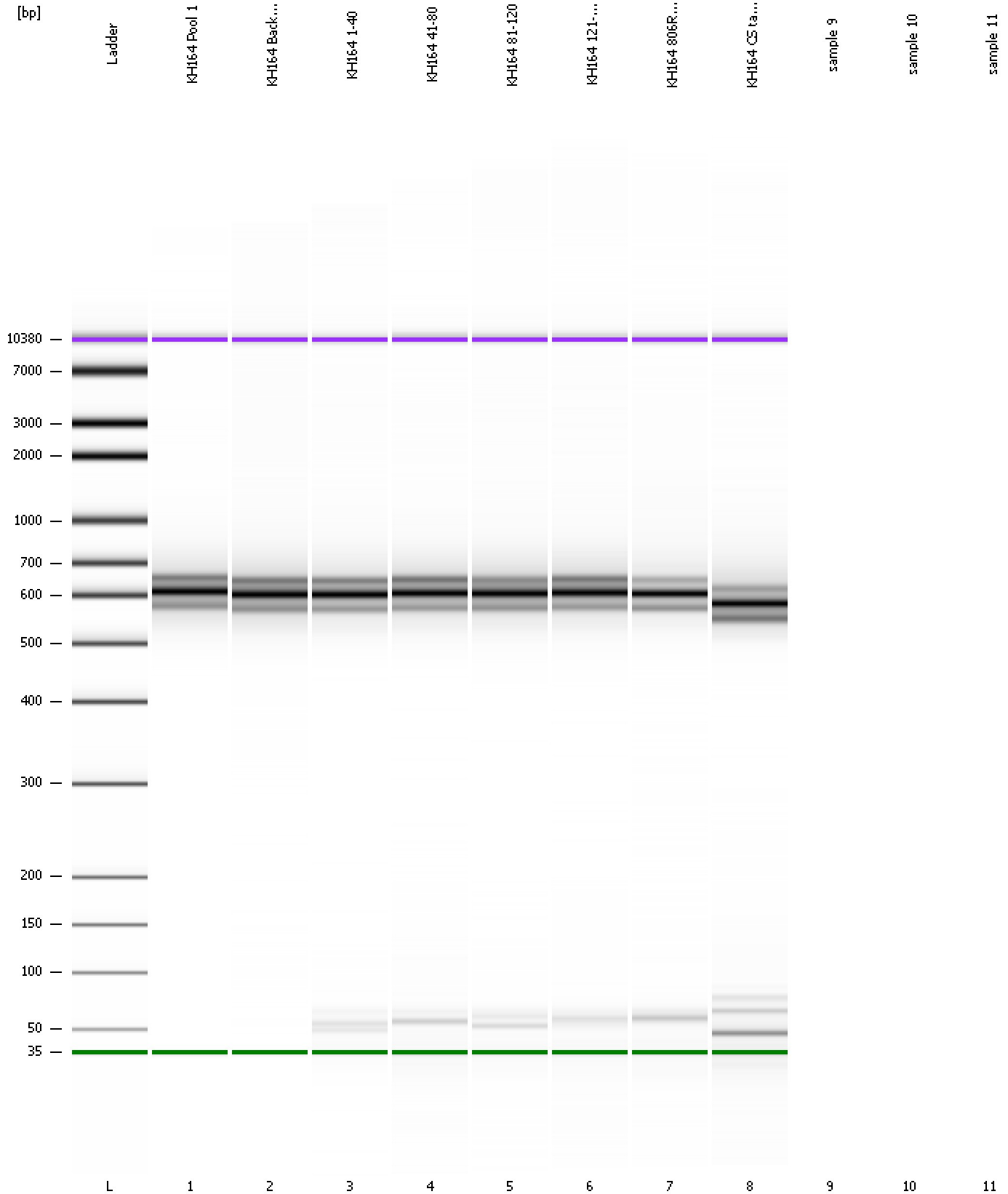
**Region table for sample 8 : KH164 CS tags test**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	597	1,016.1	2,807.7	1,095.16	64	10.7

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2017-10-04\2017-10-04\_001.xad

Created: 10/4/2017 9:15:17 AM  
Modified: 10/4/2017 9:48:04 AM

**Gel Image**



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2017-10-04\2017-10-04\_001.xad

Created: 10/4/2017 9:15:17 AM  
Modified: 10/4/2017 9:48:04 AM

**Invalid Samples**

Sample 9 has not been run, no results available.

Sample 10 has not been run, no results available.

Sample 11 has not been run, no results available.