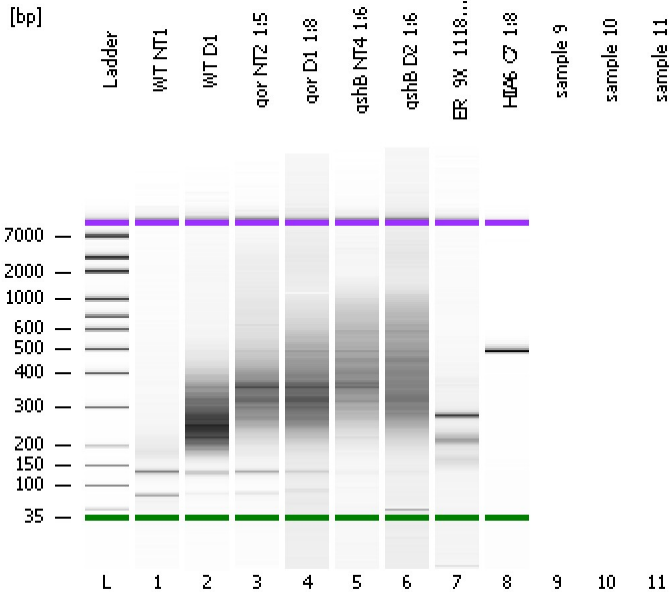


Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-21\2014-11-21_001.xad

Created: 11/21/2014 1:11:11 PM
 Modified: 11/21/2014 1:45:45 PM

Electrophoresis File Run Summary



Instrument Information:

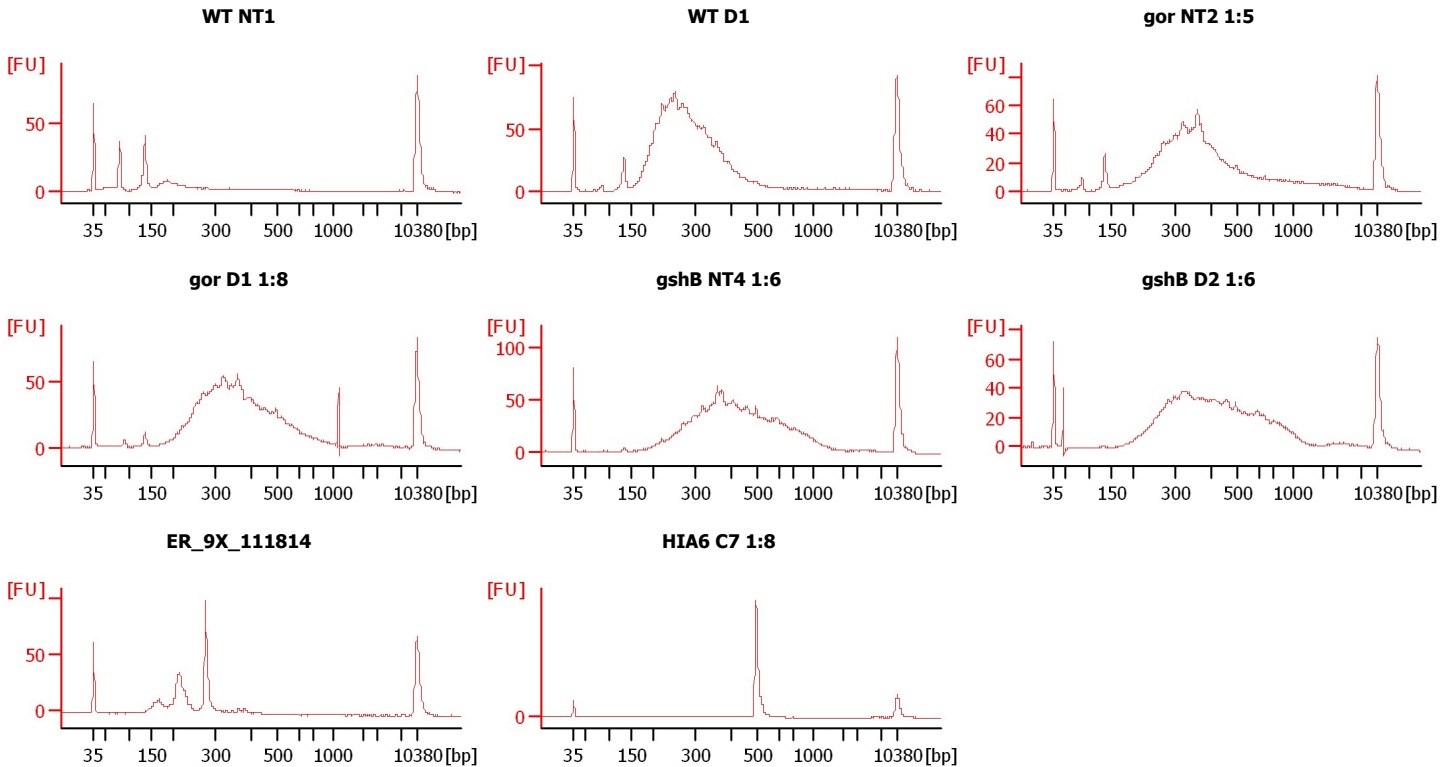
Instrument Name: DE13701086 Firmware: C.01.069
 Serial#: DE13701086 Type: G2938B

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:



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-21\2014-11-21_001.xad

Created: 11/21/2014 1:11:11 PM
 Modified: 11/21/2014 1:45:45 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
WT NT1		<input type="checkbox"/>	✓			
WT D1		<input type="checkbox"/>	✓			
gor NT2 1:5		<input type="checkbox"/>	✓			
gor D1 1:8		<input type="checkbox"/>	✓			
gshB NT4 1:6		<input type="checkbox"/>	✓			
gshB D2 1:6		<input type="checkbox"/>	✓			
ER_9X_111814		<input type="checkbox"/>	✓			
HIA6 C7 1:8		<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:\...ents and Settings\Bioanalyzer\2014-11-21\2014-11-21_001.xad

Created: 11/21/2014 1:11:11 PM
 Modified: 11/21/2014 1:45:45 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

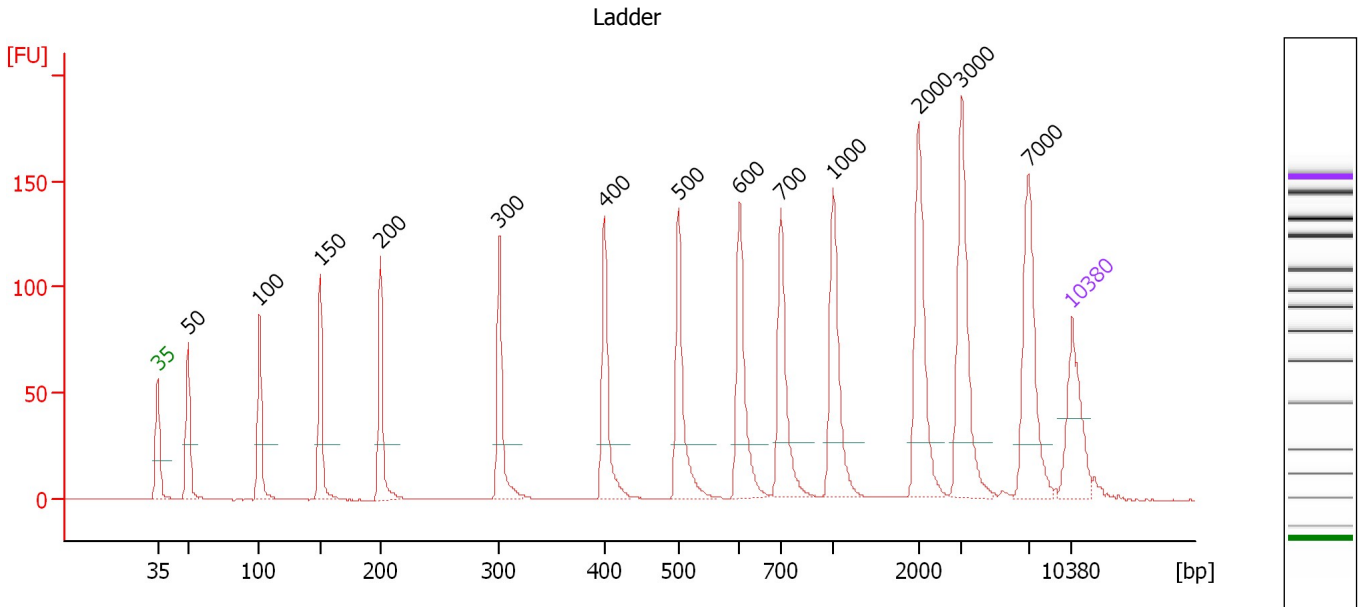
Ladder

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:\...ents and Settings\Bioanalyzer\2014-11-21\2014-11-21_001.xad

Created: 11/21/2014 1:11:11 PM
 Modified: 11/21/2014 1:45:45 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.1

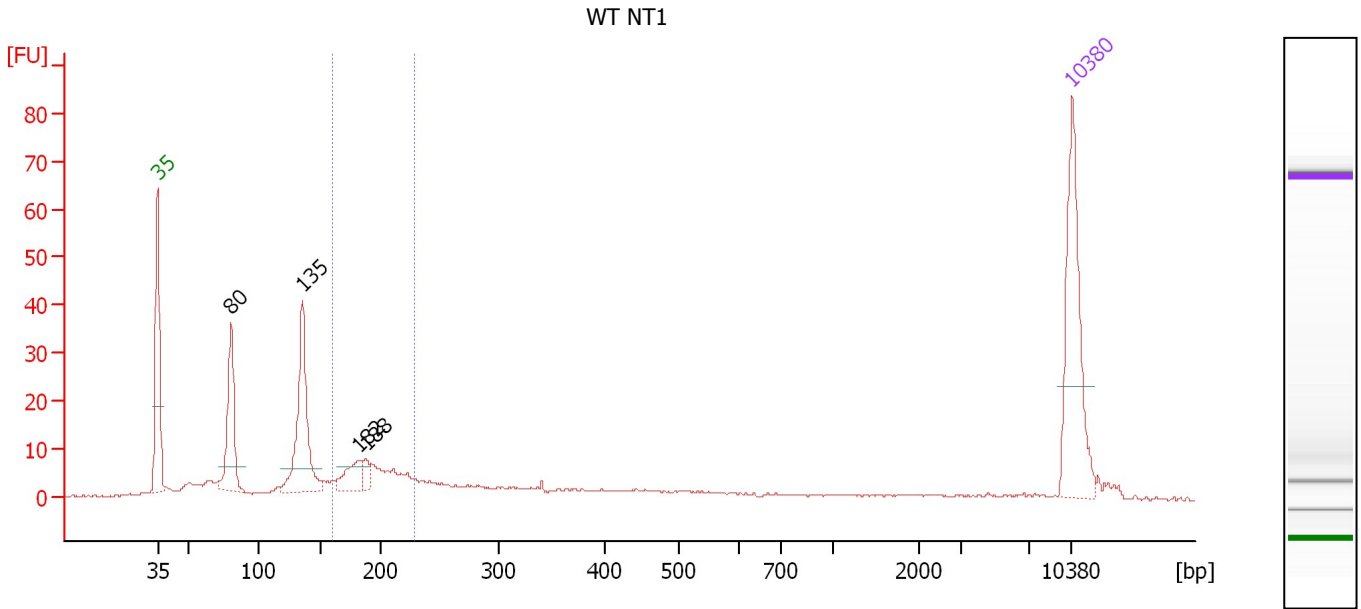
Peak table for Ladder

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	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

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-21\2014-11-21_001.xad

Created: 11/21/2014 1:11:11 PM
 Modified: 11/21/2014 1:45:45 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : WT NT1

Number of peaks found: 4 Corr. Area 1: 63.2
 Noise: 0.2

Peak table for sample 1 : WT NT1

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	80	77.43	1,461.5	
3	135	110.04	1,231.8	
4	182	24.71	205.3	
5	188	9.52	76.9	
6	10,380	75.00	10.9	Upper Marker

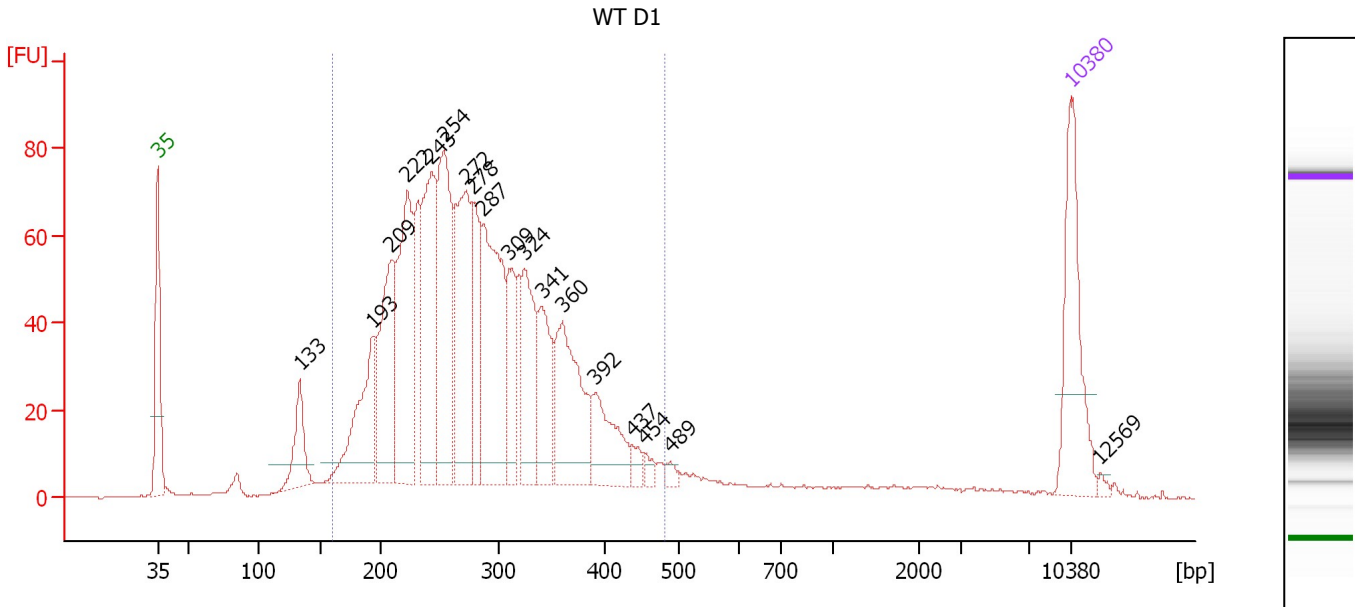
Region table for sample 1 : WT NT1

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
160	193	228	63.2	20	9.4	97.83	775.7	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-21\2014-11-21_001.xad

Created: 11/21/2014 1:11:11 PM
 Modified: 11/21/2014 1:45:45 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : WT D1

Number of peaks found: 18 Corr. Area 1: 1,593.5
 Noise: 0.2

Peak table for sample 2 : WT D1

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	133	53.50	609.5	
3	193	110.76	869.4	
4	209	127.54	925.9	
5	222	169.83	1,158.9	
6	243	156.72	978.1	
7	254	170.31	1,017.4	
8	272	154.47	860.8	
9	278	72.83	396.5	
10	287	176.58	933.1	
11	309	59.52	291.9	
12	324	88.02	411.7	
13	341	70.49	313.5	
14	360	115.13	484.4	
15	392	58.66	226.8	
16	437	9.22	32.0	
17	454	6.86	22.9	
18	489	6.02	18.7	
19	10,380	75.00	10.9	Upper Marker
20	12,569	0.00	0.0	

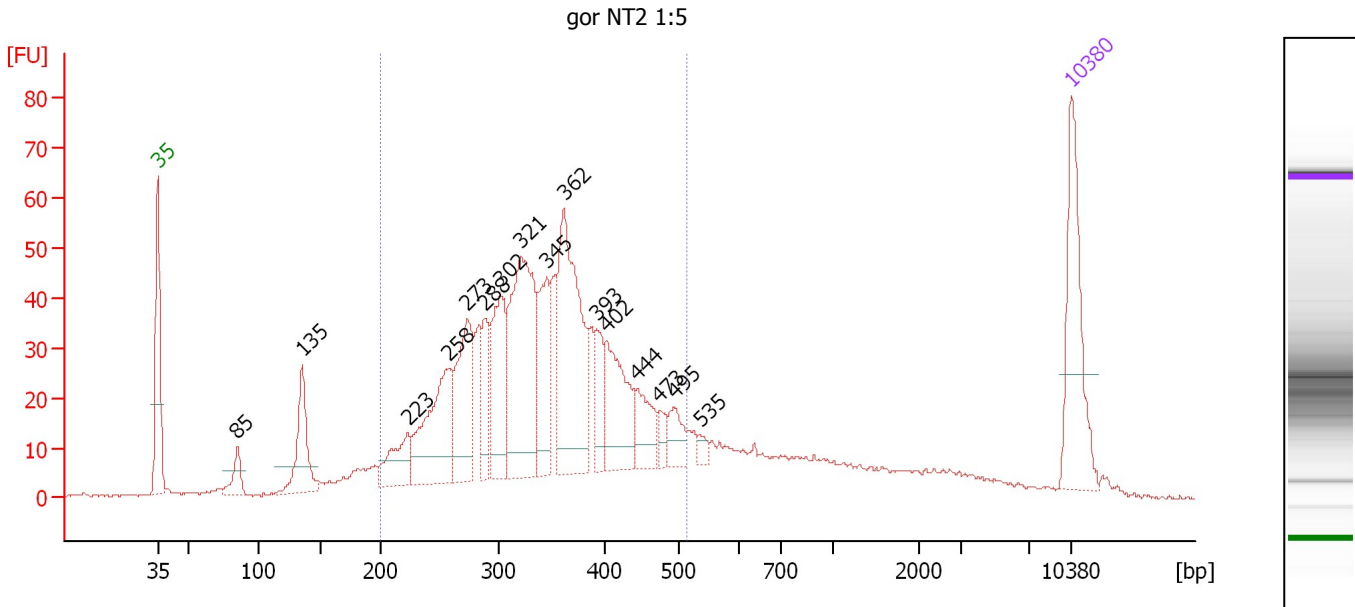
Region table for sample 2 : WT D1

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
160	284	482	1,593.5	90	23.1	1,794.45	10,262.7	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-21\2014-11-21_001.xad

Created: 11/21/2014 1:11:11 PM
 Modified: 11/21/2014 1:45:45 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : gor NT2 1:5

Number of peaks found: 16 Corr. Area 1: 959.1
 Noise: 0.3

Peak table for sample 3 : gor NT2 1:5

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	85	24.64	441.7	
3	135	73.01	819.7	
4	223	46.98	319.1	
5	258	116.67	685.9	
6	273	95.45	529.2	
7	288	43.05	226.2	
8	302	87.80	441.1	
9	321	183.15	865.0	
10	345	71.25	312.8	
11	362	178.28	747.2	
12	393	31.45	121.4	
13	402	77.68	292.5	
14	444	36.71	125.3	
15	473	11.74	37.6	
16	495	22.11	67.7	
17	535	6.49	18.4	
18	10,380	75.00	10.9	Upper Marker

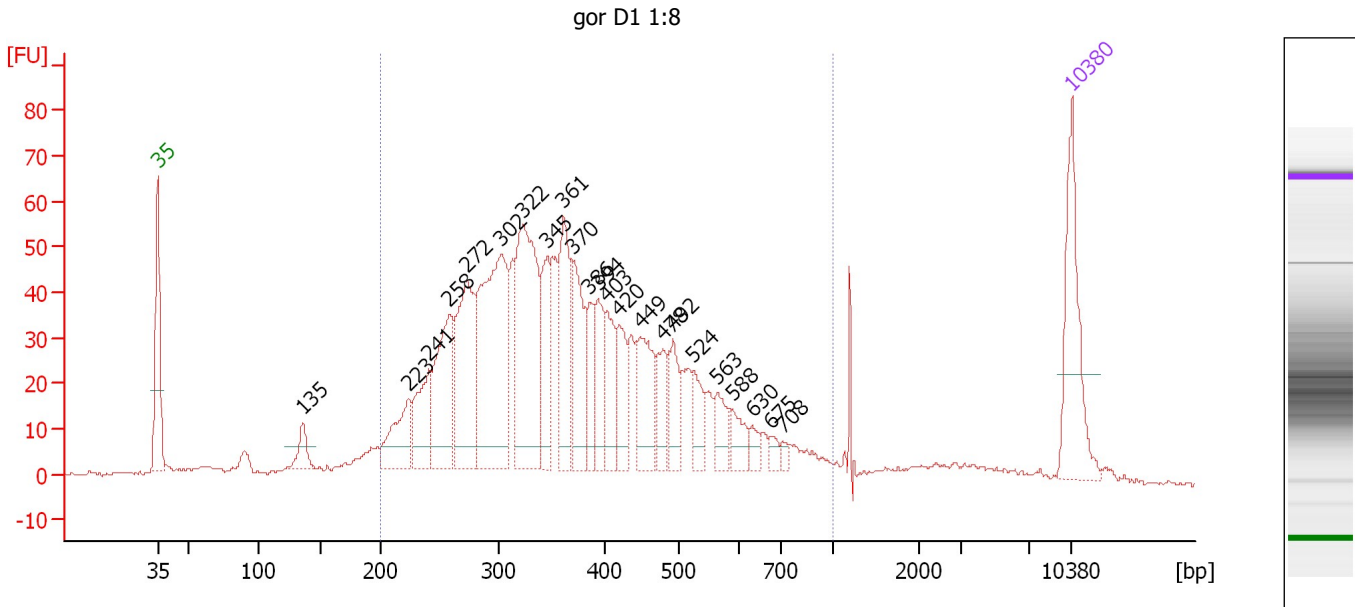
Region table for sample 3 : gor NT2 1:5

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	343	515	959.1	75	20.4	1,293.78	6,068.4	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-21\2014-11-21_001.xad

Created: 11/21/2014 1:11:11 PM
 Modified: 11/21/2014 1:45:45 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : gor D1 1:8

Number of peaks found: 23 Corr. Area 1: 1,343.6
 Noise: 0.4

Peak table for sample 4 : gor D1 1:8


Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	135	25.59	286.6	
3	223	62.01	420.5	
4	241	66.11	416.2	
5	258	115.45	678.2	
6	272	138.80	772.7	
7	302	226.21	1,135.6	
8	322	192.29	905.3	
9	345	59.56	261.4	
10	361	92.91	389.7	
11	370	74.10	303.1	
12	386	40.33	158.4	
13	394	45.44	174.8	
14	403	48.42	181.8	
15	420	41.45	149.4	
16	449	65.61	221.6	
17	478	35.37	112.0	
18	492	36.46	112.2	
19	524	25.48	73.7	
20	563	25.75	69.3	
21	588	20.40	52.6	
22	630	10.98	26.4	
23	675	8.13	18.2	
24	708	5.87	12.6	
25	10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-21\2014-11-21_001.xad

Created: 11/21/2014 1:11:11 PM
Modified: 11/21/2014 1:45:45 PM

Electropherogram Summary Continued ...

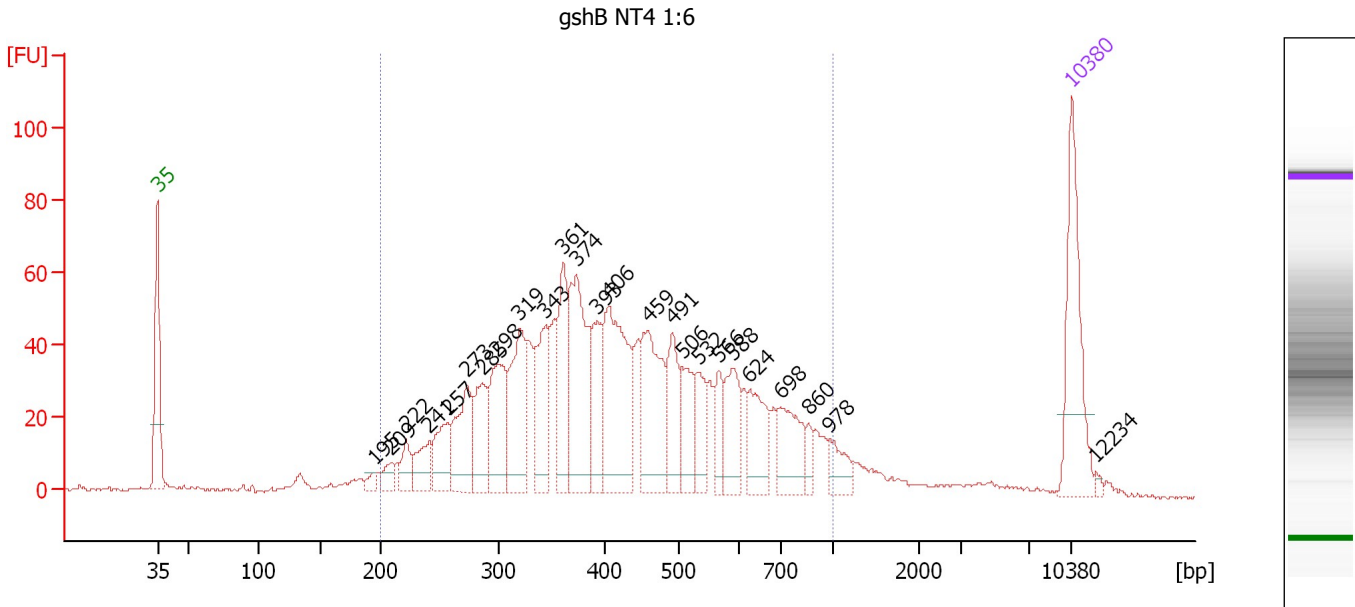
... Region table for sample 4 : gor D1 1:8

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/ μ l]	Molarity [pmol/l]	Color
200	386	1,000	1,343.6	89	33.4	1,813.37	8,079.3	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-21\2014-11-21_001.xad

Created: 11/21/2014 1:11:11 PM
 Modified: 11/21/2014 1:45:45 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : gshB NT4 1:6

Number of peaks found: 25 Corr. Area 1: 1,469.9
 Noise: 0.4

Peak table for sample 5 : gshB NT4 1:6

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	195	7.81	60.6	
3	209	15.12	109.7	
4	222	20.92	143.0	
5	241	31.41	197.3	
6	257	43.44	256.5	
7	273	67.14	372.6	
8	285	52.76	280.1	
9	298	77.81	395.3	
10	319	86.91	412.2	
11	343	69.03	304.7	
12	361	68.88	288.9	
13	374	118.78	481.2	
14	393	50.04	193.2	
15	406	135.89	507.4	
16	459	94.94	313.4	
17	491	51.07	157.7	
18	506	40.26	120.6	
19	532	30.08	85.7	
20	566	25.06	67.1	
21	588	44.66	115.0	
22	624	44.25	107.4	
23	698	48.69	105.7	
24	860	10.47	18.5	
25	978	20.46	31.7	
26	10,380	75.00	10.9	Upper Marker


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-21\2014-11-21_001.xad

Created: 11/21/2014 1:11:11 PM
Modified: 11/21/2014 1:45:45 PM

Electropherogram Summary Continued ...**... Peak table for sample 5 : gshB NT4 1:6**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
27	12,234	0.00	0.0	

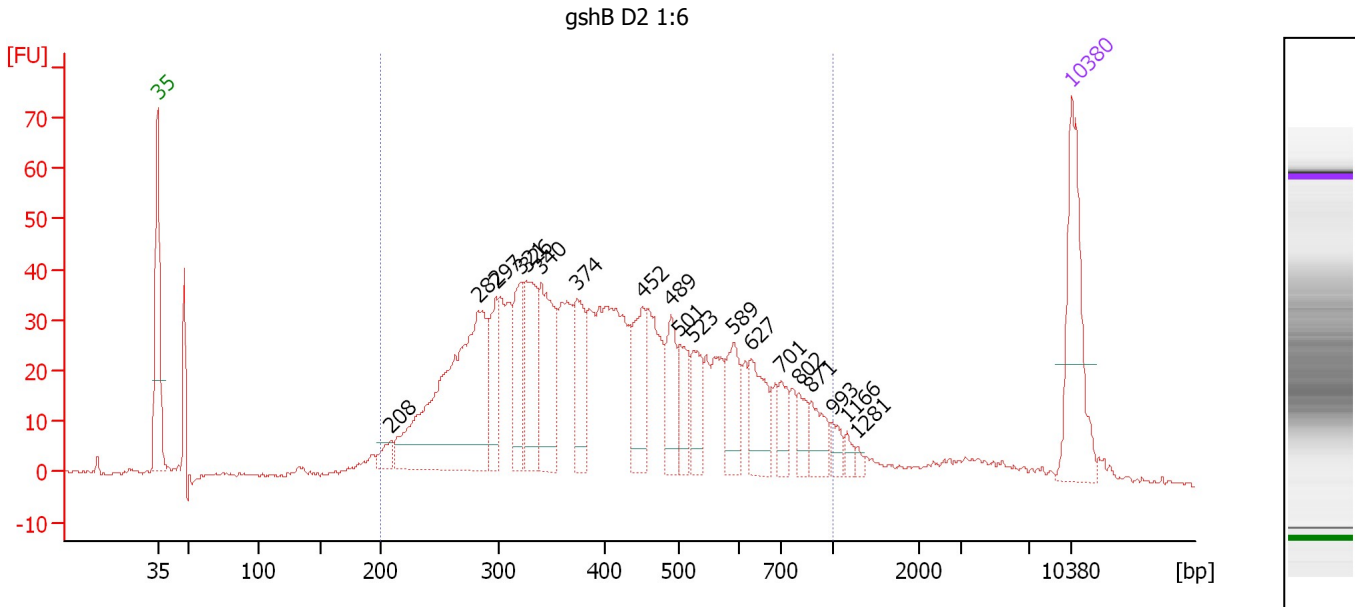
Region table for sample 5 : gshB NT4 1:6

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	444	1,000	1,469.9	90	35.4	1,438.73	5,736.4	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-21\2014-11-21_001.xad

Created: 11/21/2014 1:11:11 PM
 Modified: 11/21/2014 1:45:45 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : gshB D2 1:6

Number of peaks found: 19 Corr. Area 1: 1,184.8
 Noise: 0.4

Peak table for sample 6 : gshB D2 1:6

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	208	13.52	98.3	
3	282	273.49	1,468.6	
4	297	52.79	269.2	
5	321	55.38	261.8	
6	326	80.09	372.5	
7	340	92.58	412.3	
8	374	53.27	215.5	
9	452	56.39	189.2	
10	489	41.57	128.7	
11	501	33.10	100.1	
12	523	32.40	93.9	
13	589	38.46	98.9	
14	627	43.62	105.3	
15	701	20.70	44.8	
16	802	17.78	33.6	
17	871	24.00	41.7	
18	993	11.10	16.9	
19	1,166	6.24	8.1	
20	1,281	3.76	4.4	
21	10,380	75.00	10.9	Upper Marker

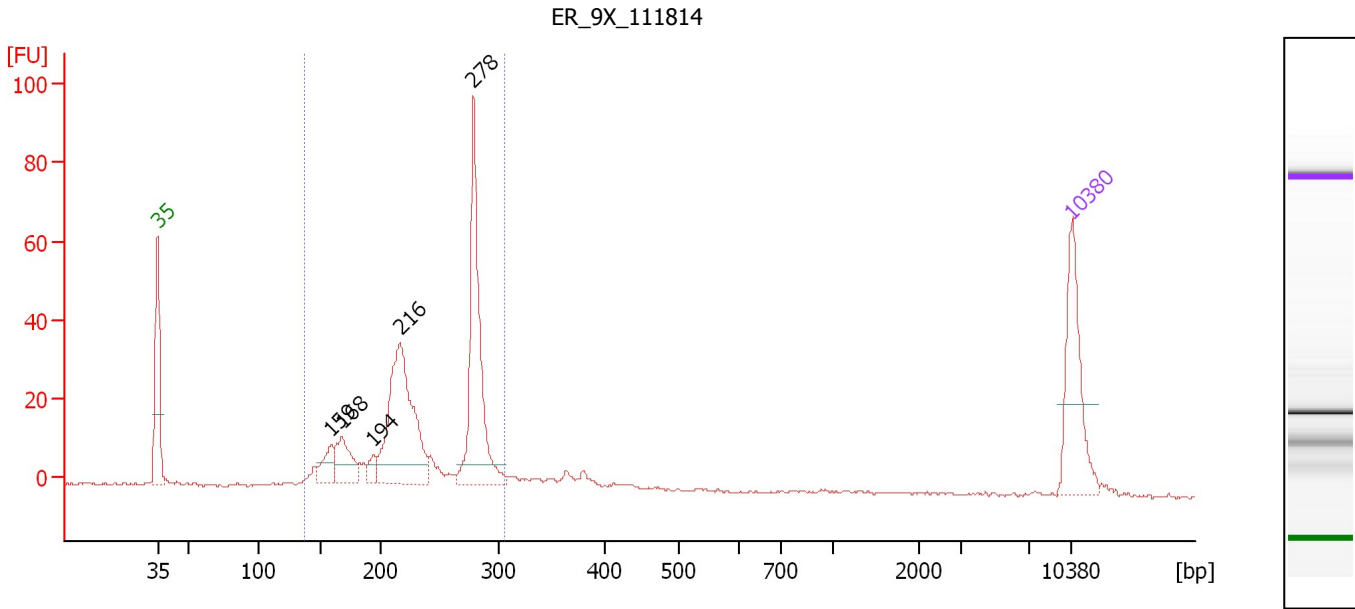
Region table for sample 6 : gshB D2 1:6

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	435	1,000	1,184.8	89	37.0	1,516.90	6,244.7	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-21\2014-11-21_001.xad

Created: 11/21/2014 1:11:11 PM
 Modified: 11/21/2014 1:45:45 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : ER_9X_111814

Number of peaks found: 5 Corr. Area 1: 382.3
 Noise: 0.4

Peak table for sample 7 : ER_9X_111814

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	159	31.37	299.1	
3	168	51.69	467.4	
4	194	14.30	111.9	
5	216	213.68	1,496.9	
6	278	196.57	1,069.7	
7	10,380	75.00	10.9	Upper Marker

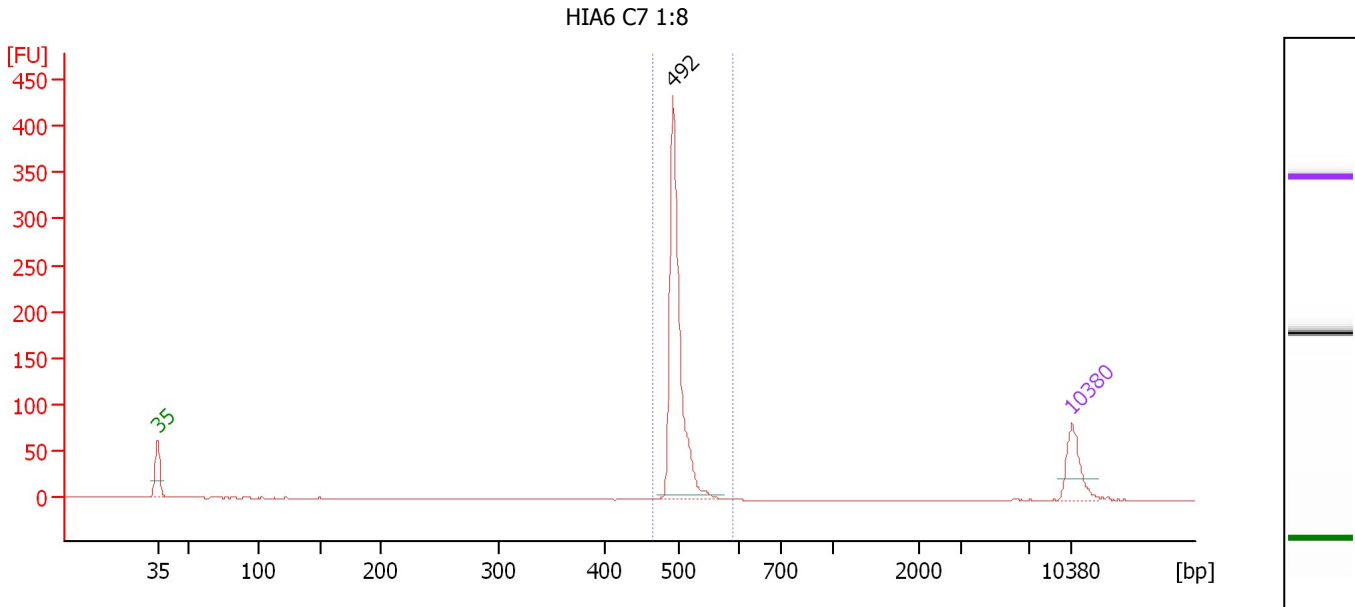
Region table for sample 7 : ER_9X_111814

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
137	234	305	382.3	68	18.9	639.07	4,341.9	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-21\2014-11-21_001.xad

Created: 11/21/2014 1:11:11 PM
 Modified: 11/21/2014 1:45:45 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : HIA6 C7 1:8

Number of peaks found: 1 Corr. Area 1: 474.4
 Noise: 0.2

Peak table for sample 8 : HIA6 C7 1:8

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	492	569.94	1,754.4	
3	10,380	75.00	10.9	Upper Marker

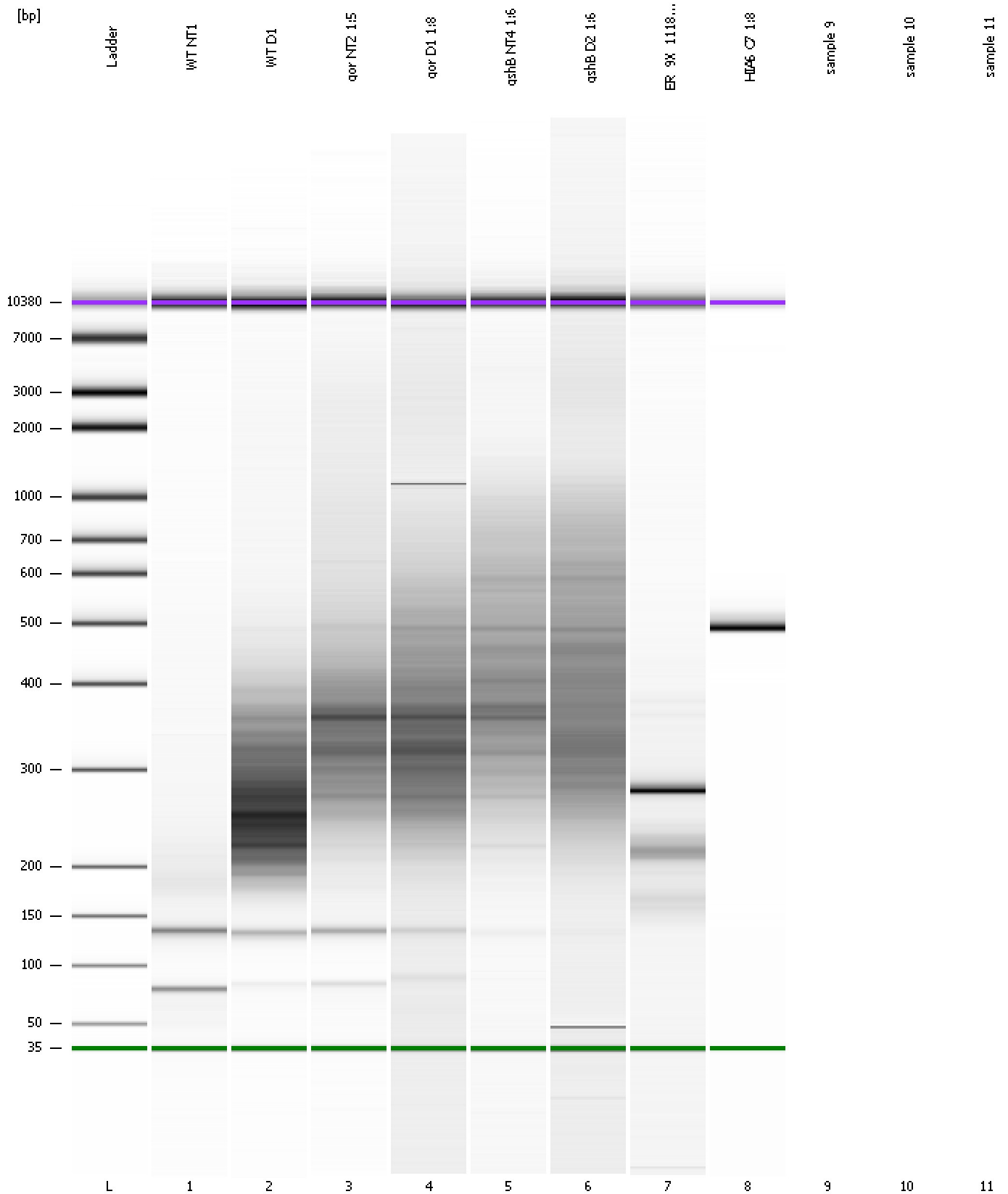
Region table for sample 8 : HIA6 C7 1:8

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
464	499	588	474.4	98	2.5	564.06	1,715.3	Blue

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-21\2014-11-21_001.xad

Created: 11/21/2014 1:11:11 PM
Modified: 11/21/2014 1:45:45 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-21\2014-11-21_001.xad

Created: 11/21/2014 1:11:11 PM
Modified: 11/21/2014 1:45:45 PM

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.

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-21\2014-11-21_001.xad

Created: 11/21/2014 1:11:11 PM
 Modified: 11/21/2014 1:45:45 PM

Run Logbook

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 9)		Instrument	Run		11/21/2014 1:43:54 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2014-11-21\2014-11-21_001.xad)		Instrument	Run		11/21/2014 1:11:17 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		11/21/2014 1:11:17 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		11/21/2014 1:11:17 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		11/21/2014 1:11:17 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		11/21/2014 1:11:17 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		11/21/2014 1:11:17 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		11/21/2014 1:11:17 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1