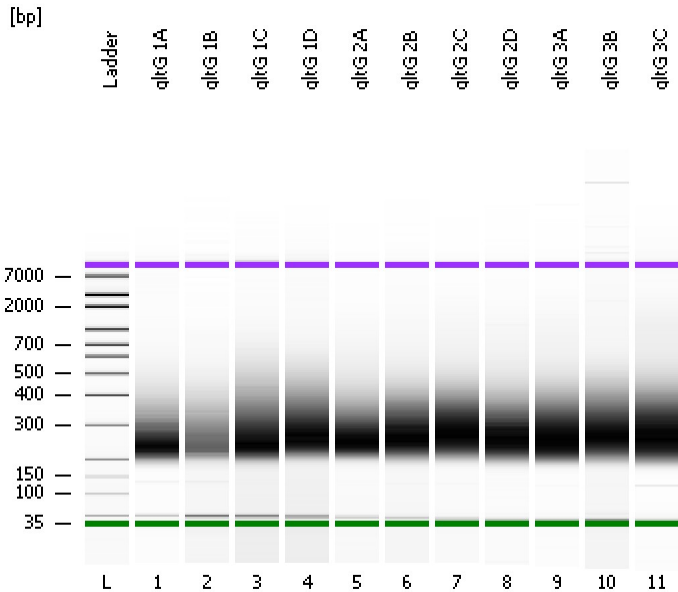


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-19\2016-05-19\_001.xad

Created: 5/19/2016 9:52:30 AM  
Modified: 5/19/2016 10:33:48 AM

**Electrophoresis File Run Summary**



Instrument Information:

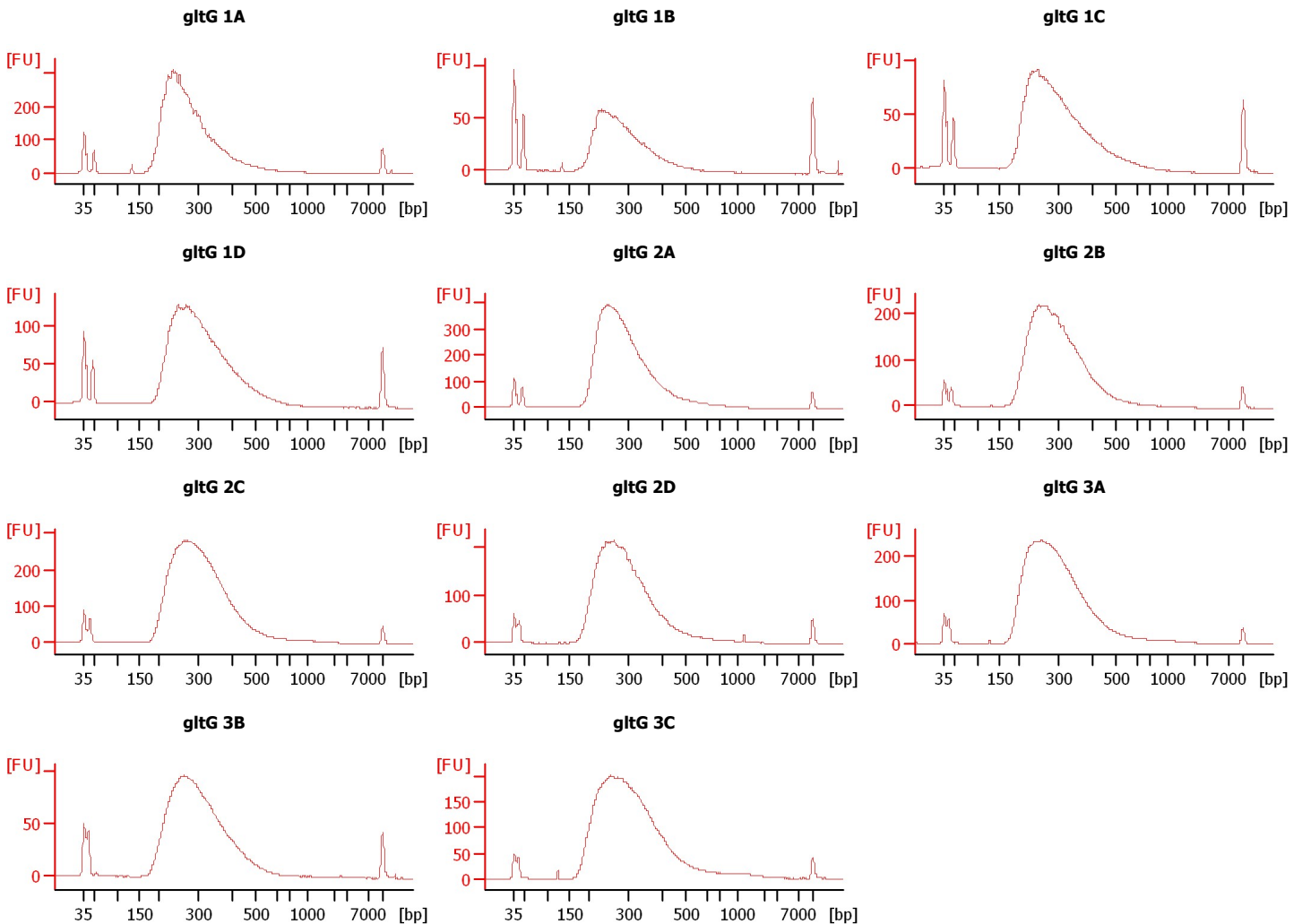
Instrument Name: DE13701086      Firmware: C.01.069  
Serial#: DE13701086      Type: G2938B

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:



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-19\2016-05-19\_001.xad

Created: 5/19/2016 9:52:30 AM  
Modified: 5/19/2016 10:33:48 AM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
gltG 1A		<input type="checkbox"/>	✓			
gltG 1B		<input type="checkbox"/>	✓			
gltG 1C		<input type="checkbox"/>	✓			
gltG 1D		<input type="checkbox"/>	✓			
gltG 2A		<input type="checkbox"/>	✓			
gltG 2B		<input type="checkbox"/>	✓			
gltG 2C		<input type="checkbox"/>	✓			
gltG 2D		<input type="checkbox"/>	✓			
gltG 3A		<input type="checkbox"/>	✓			
gltG 3B		<input type="checkbox"/>	✓			
gltG 3C		<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\2016-05-19\2016-05-19\_001.xad

Created: 5/19/2016 9:52:30 AM  
Modified: 5/19/2016 10:33:48 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

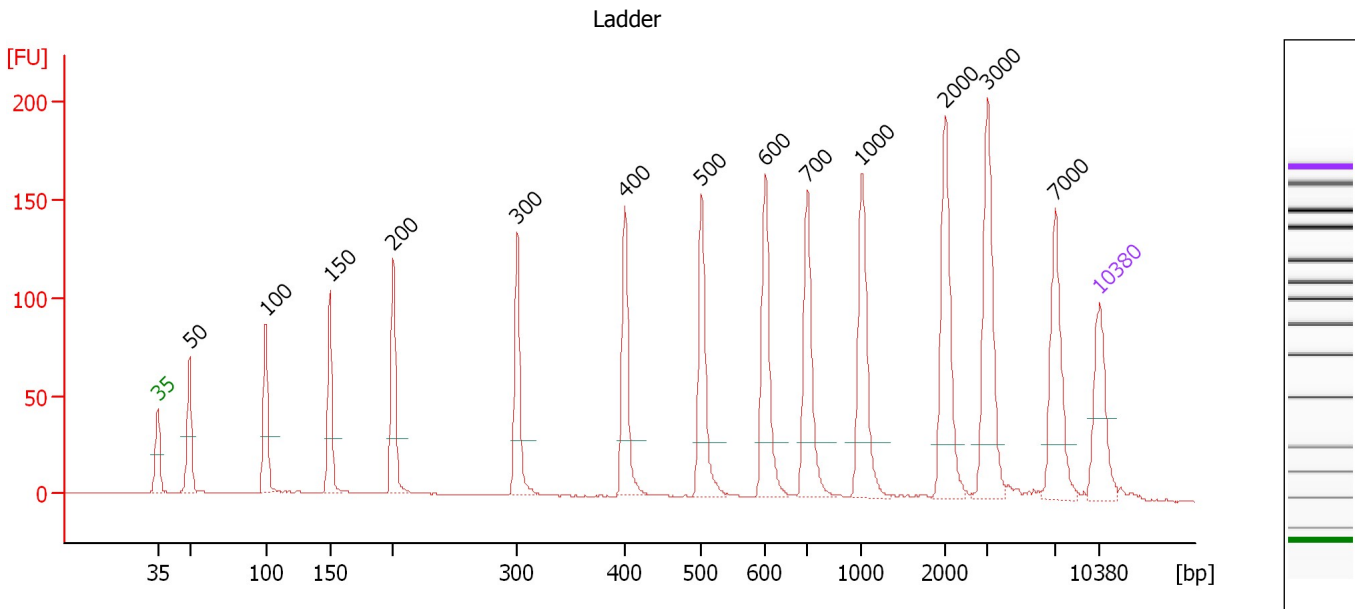
**Ladder**

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\2016-05-19\2016-05-19\_001.xad

Created: 5/19/2016 9:52:30 AM  
 Modified: 5/19/2016 10:33:48 AM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.2

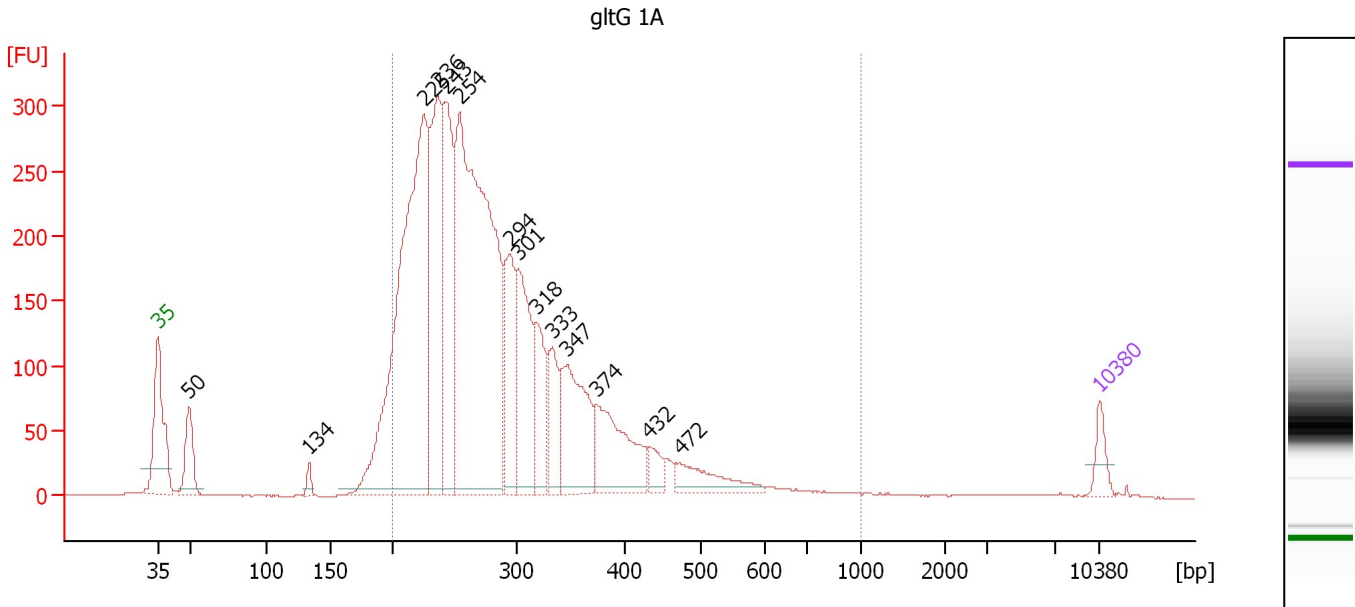
**Peak table for Ladder**

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	45.37
3	100	150.00	2,272.7	Ladder Peak	51.04
4	150	150.00	1,515.2	Ladder Peak	55.77
5	200	150.00	1,136.4	Ladder Peak	60.51
6	300	150.00	757.6	Ladder Peak	69.71
7	400	150.00	568.2	Ladder Peak	77.70
8	500	150.00	454.5	Ladder Peak	83.41
9	600	150.00	378.8	Ladder Peak	88.15
10	700	150.00	324.7	Ladder Peak	91.26
11	1,000	150.00	227.3	Ladder Peak	95.30
12	2,000	150.00	113.6	Ladder Peak	101.53
13	3,000	150.00	75.8	Ladder Peak	104.69
14	7,000	150.00	32.5	Ladder Peak	109.66
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-19\2016-05-19\_001.xad

Created: 5/19/2016 9:52:30 AM  
 Modified: 5/19/2016 10:33:48 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : gltG 1A**

Number of peaks found: 14                      Corr. Area 1: 5,071.8  
 Noise: 0.2

**Peak table for sample 1 : gltG 1A**

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	288.34	8,766.7		45.34
3	134	51.17	579.2		54.24
4	225	2,896.71	19,542.8		62.77
5	236	1,111.44	7,141.9		63.80
6	243	967.70	6,035.7		64.46
7	254	3,099.17	18,514.7		65.44
8	294	525.81	2,706.4		69.19
9	301	679.36	3,418.0		69.80
10	318	353.84	1,685.1		71.16
11	333	281.52	1,281.6		72.33
12	347	626.69	2,737.2		73.46
13	374	529.71	2,146.7		75.61
14	432	95.65	335.2		79.55
15	472	205.10	658.8		81.80
16	10,380	75.00	10.9	Upper Marker	113.00

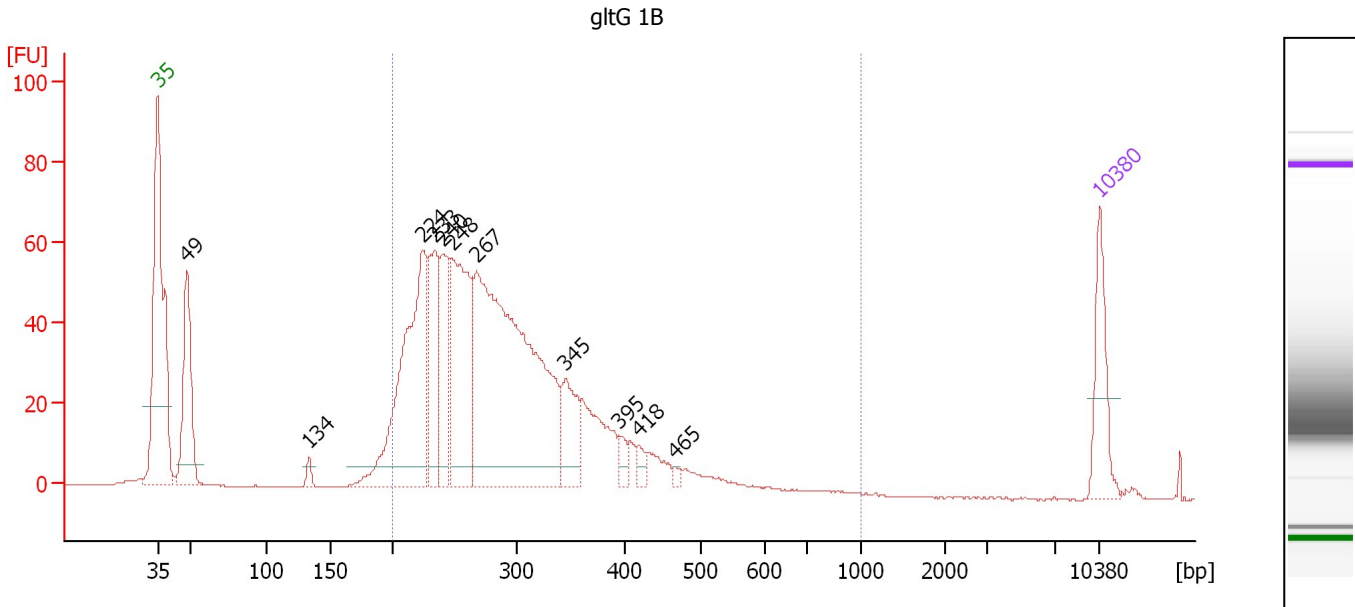
**Region table for sample 1 : gltG 1A**

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	294	5,071.8	62,428.9	11,206.66	92	30.3

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-19\2016-05-19\_001.xad

Created: 5/19/2016 9:52:30 AM  
 Modified: 5/19/2016 10:33:48 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : gltG 1B**

Number of peaks found: 11                      Corr. Area 1: 1,085.1  
 Noise: 0.1

**Peak table for sample 2 : gltG 1B**

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	49	222.36	6,879.5		45.21
3	134	13.43	151.8		54.27
4	224	447.36	3,026.1		62.72
5	233	144.94	941.8		63.56
6	240	150.46	950.6		64.17
7	248	306.08	1,870.1		64.92
8	267	833.28	4,721.9		66.71
9	345	95.59	420.2		73.28
10	395	19.12	73.3		77.32
11	418	15.87	57.5		78.73
12	465	6.77	22.1		81.40
13	10,380	75.00	10.9	Upper Marker	113.00

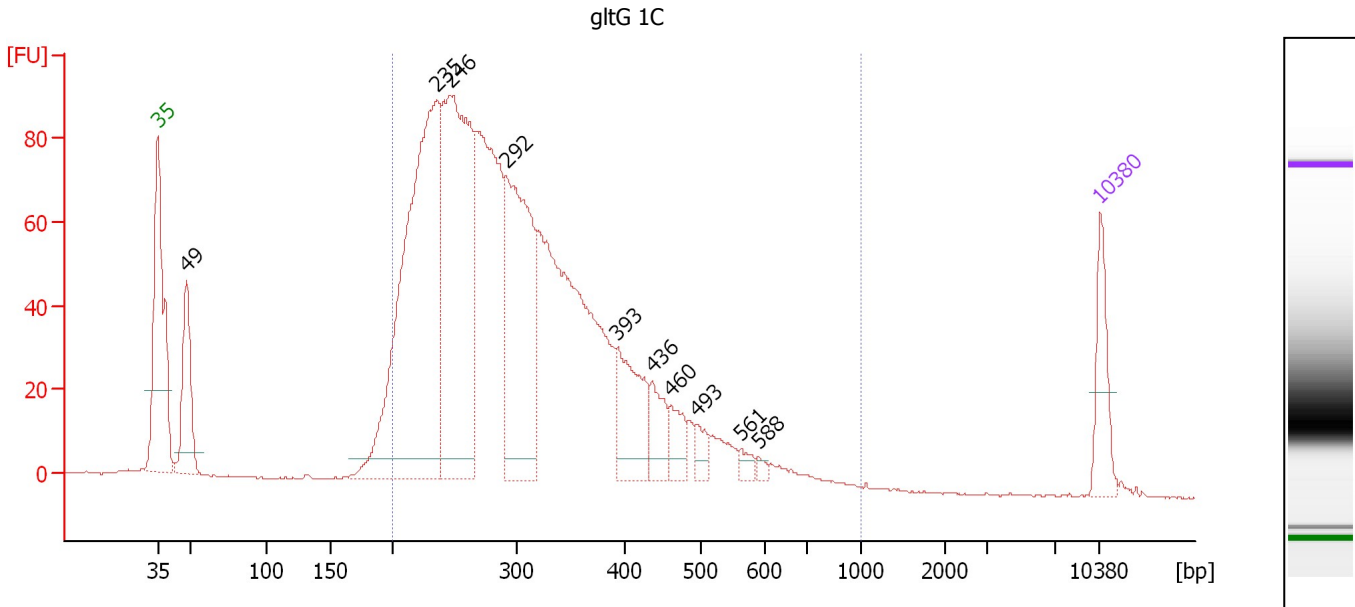
**Region table for sample 2 : gltG 1B**

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	296	1,085.1	12,127.5	2,216.25	89	26.9

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-19\2016-05-19\_001.xad

Created: 5/19/2016 9:52:30 AM  
 Modified: 5/19/2016 10:33:48 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : gltG 1C**

Number of peaks found: 10                      Corr. Area 1: 1,920.0  
 Noise: 0.2

**Peak table for sample 3 : gltG 1C**

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	49	212.49	6,623.8		45.15
3	235	1,074.55	6,915.2		63.77
4	246	805.95	4,967.6		64.73
5	292	514.63	2,674.9		68.93
6	393	169.34	652.8		77.14
7	436	73.63	255.8		79.77
8	460	53.44	176.2		81.10
9	493	29.04	89.2		83.01
10	561	17.50	47.2		86.31
11	588	8.70	22.4		87.60
12	10,380	75.00	10.9	Upper Marker	113.00

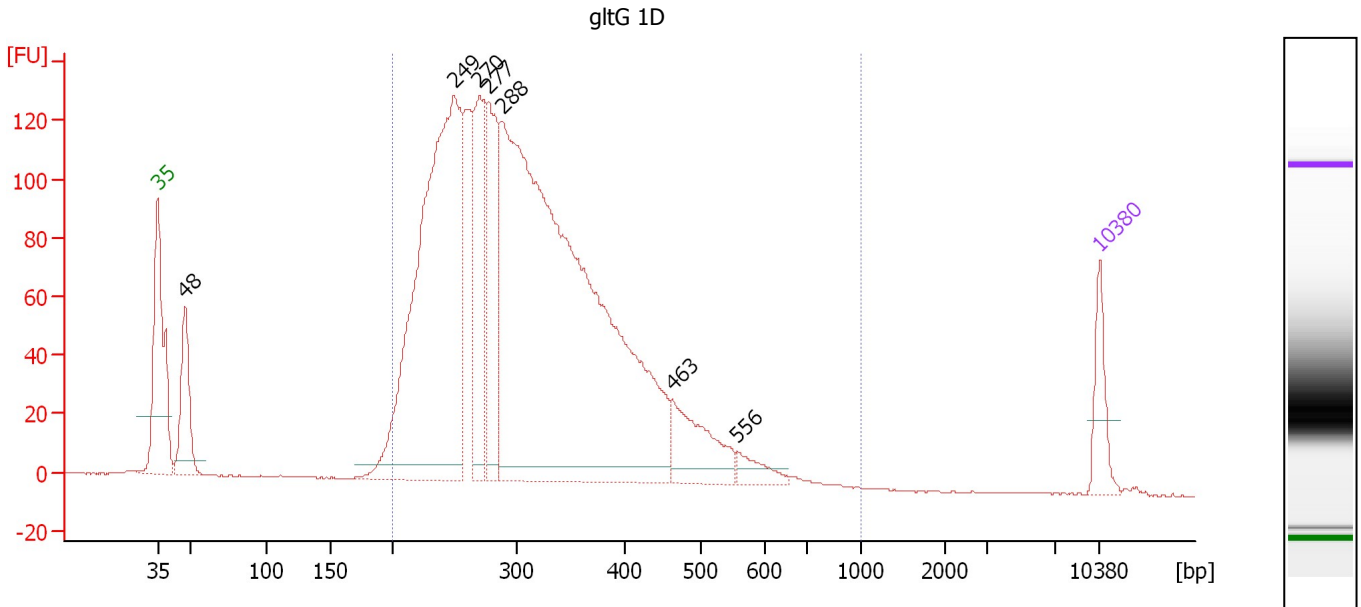
**Region table for sample 3 : gltG 1C**

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	315	1,920.0	22,069.1	4,175.21	93	30.6

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-19\2016-05-19\_001.xad

Created: 5/19/2016 9:52:30 AM  
 Modified: 5/19/2016 10:33:48 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : gltG 1D**

Number of peaks found: 7                      Corr. Area 1: 2,751.6  
 Noise: 0.1

**Peak table for sample 4 : gltG 1D**

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	48	237.66	7,508.9		45.05
3	249	1,535.41	9,342.9		65.02
4	270	383.43	2,154.4		66.92
5	277	348.16	1,903.9		67.60
6	288	2,695.31	14,196.4		68.57
7	463	194.08	635.4		81.29
8	556	48.71	132.8		86.06
9	10,380	75.00	10.9	Upper Marker	113.00

**Region table for sample 4 : gltG 1D**

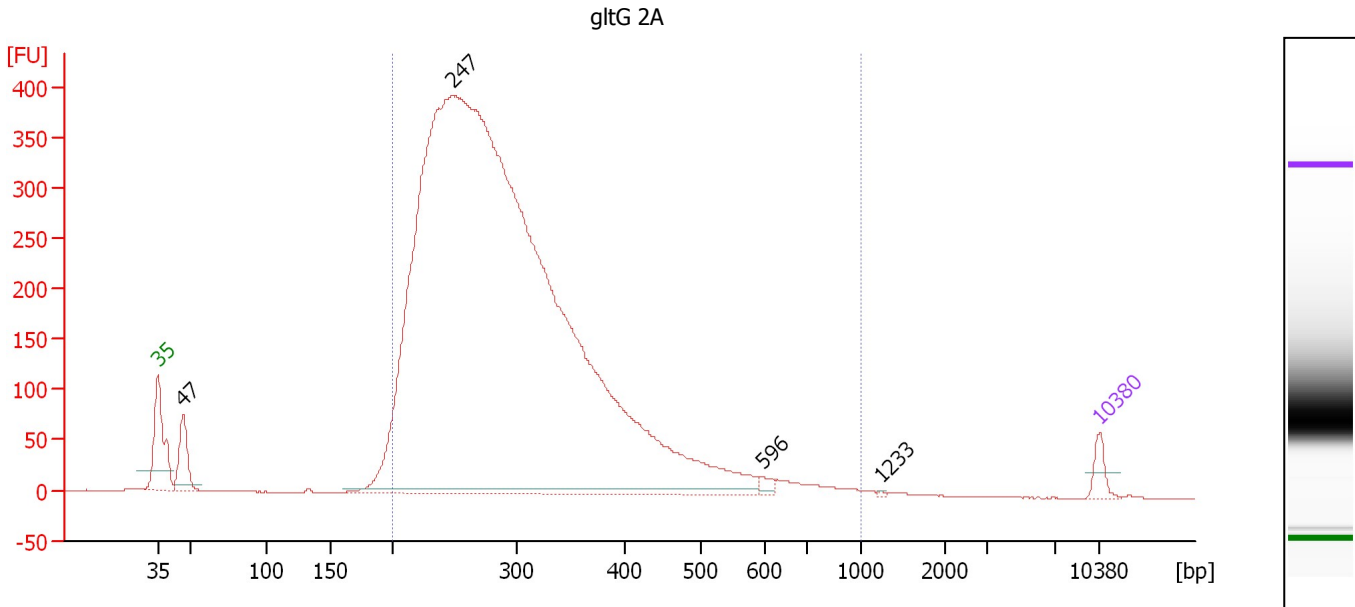
From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	318	2,751.6	27,189.7	5,276.19	95	27.4



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-19\2016-05-19\_001.xad

Created: 5/19/2016 9:52:30 AM  
 Modified: 5/19/2016 10:33:48 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : gltG 2A**

Number of peaks found: 4                      Corr. Area 1: 7,133.8  
 Noise: 0.1

**Peak table for sample 5 : gltG 2A**

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	47	365.86	11,786.5		44.90
3	247	17,796.57	109,092.2		64.85
4	596	39.07	99.3		87.95
5	1,233	5.50	6.8		96.75
6	10,380	75.00	10.9	Upper Marker	113.00

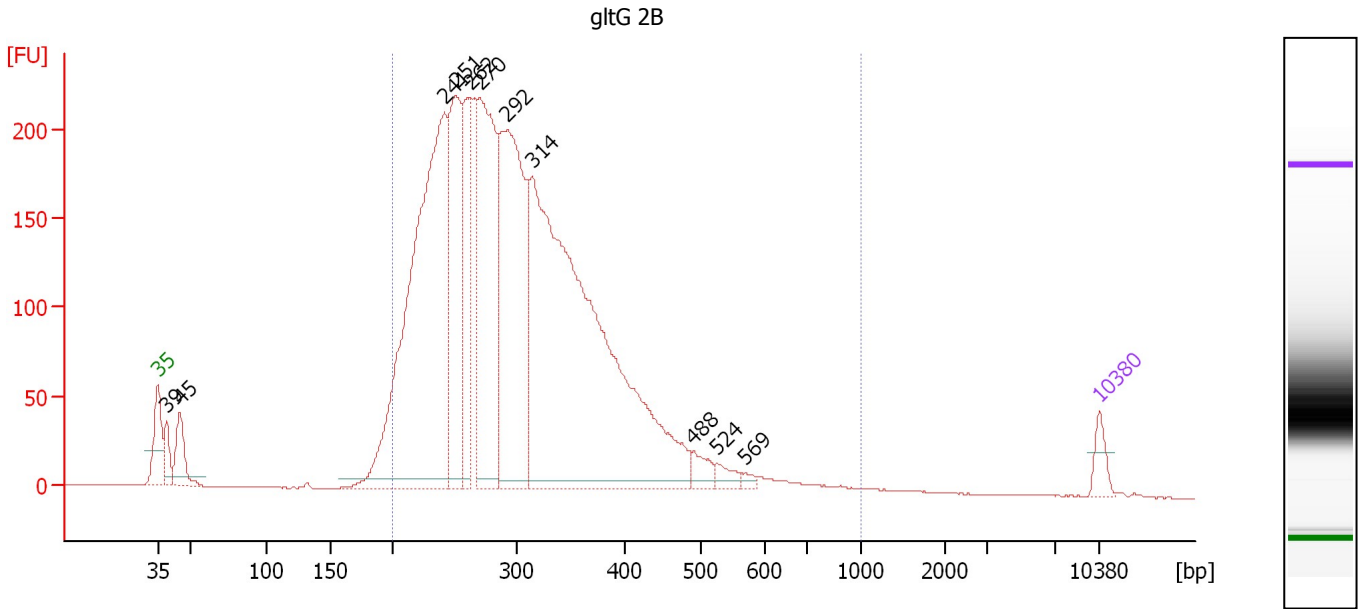
**Region table for sample 5 : gltG 2A**

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	305	7,133.8	86,567.5	16,087.22	96	30.0

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-19\2016-05-19\_001.xad

Created: 5/19/2016 9:52:30 AM  
 Modified: 5/19/2016 10:33:48 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : gltG 2B**

Number of peaks found: 11                      Corr. Area 1: 4,360.2  
 Noise: 0.1

**Peak table for sample 6 : gltG 2B**

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	39	156.03	6,028.4		43.67
3	45	280.75	9,374.6		44.64
4	241	3,317.82	20,840.3		64.30
5	251	1,098.25	6,638.0		65.17
6	262	697.67	4,028.9		66.25
7	270	1,677.10	9,405.5		66.96
8	292	1,842.79	9,565.9		68.96
9	314	4,450.32	21,492.9		70.81
10	488	101.19	314.0		82.74
11	524	72.33	209.3		84.53
12	569	28.39	75.6		86.68
13	10,380	75.00	10.9	Upper Marker	113.00

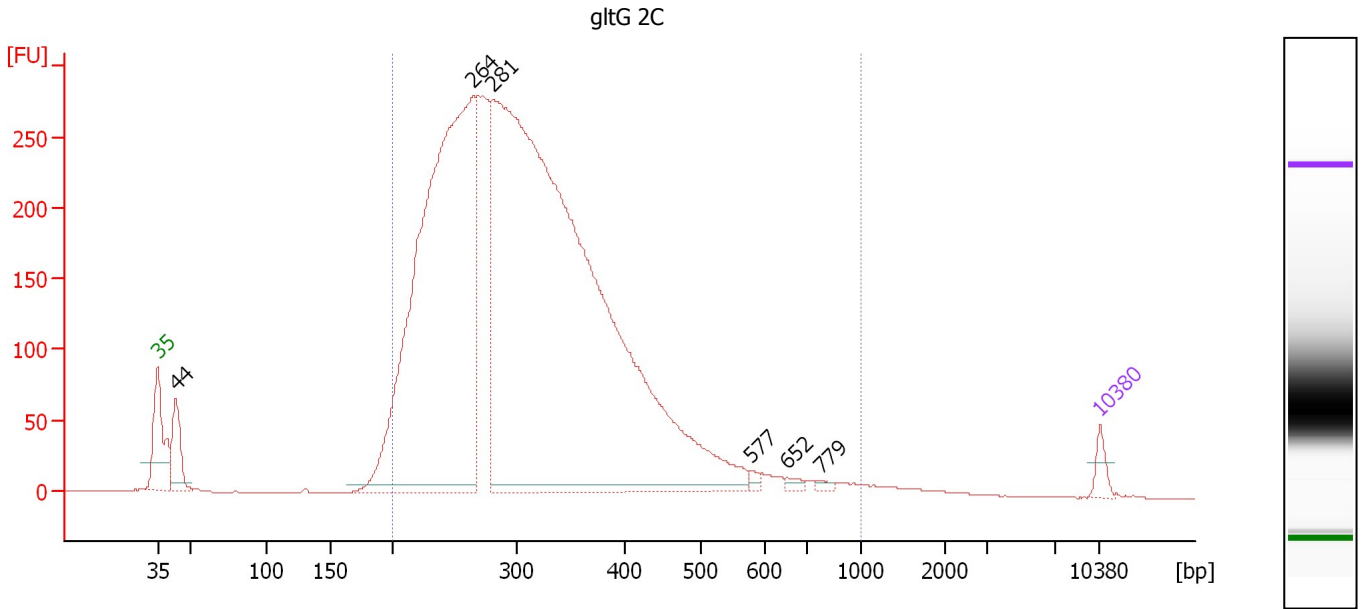
**Region table for sample 6 : gltG 2B**

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	309	4,360.2	70,051.2	13,283.01	95	27.7

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-19\2016-05-19\_001.xad

Created: 5/19/2016 9:52:30 AM  
 Modified: 5/19/2016 10:33:48 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : gltG 2C**

Number of peaks found: 6                      Corr. Area 1: 5,893.7  
 Noise: 0.1

**Peak table for sample 7 : gltG 2C**

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	44	440.05	15,271.8		44.37
3	264	6,695.42	38,417.3		66.40
4	281	11,773.96	63,565.4		67.93
5	577	35.39	92.9		87.07
6	652	33.71	78.4		89.75
7	779	25.02	48.6		92.33
8	10,380	75.00	10.9	Upper Marker	113.00

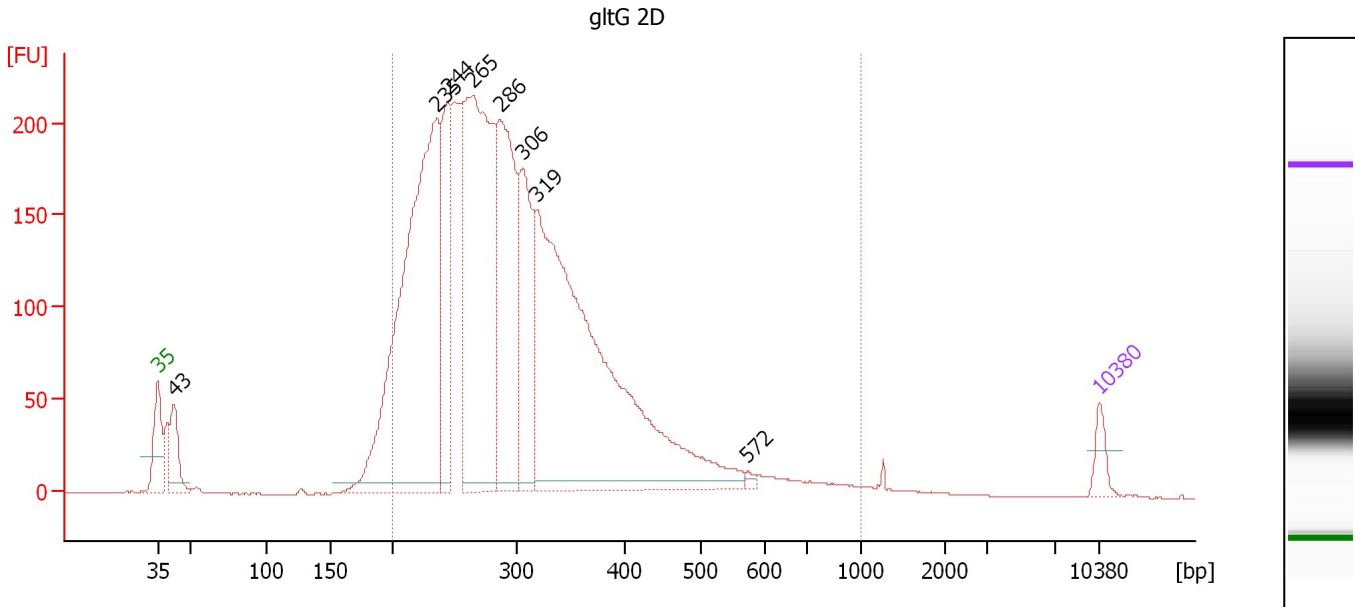
**Region table for sample 7 : gltG 2C**

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	321	5,893.7	97,095.0	18,888.57	96	29.8

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-19\2016-05-19\_001.xad

Created: 5/19/2016 9:52:30 AM  
 Modified: 5/19/2016 10:33:48 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : gltG 2D**

Number of peaks found: 8                      Corr. Area 1: 4,171.6  
 Noise: 0.2

**Peak table for sample 8 : gltG 2D**

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	43	286.51	10,153.8		44.22
3	235	3,081.43	19,888.8		63.71
4	244	768.11	4,769.6		64.56
5	265	2,232.30	12,770.8		66.48
6	286	1,357.14	7,183.3		68.44
7	306	771.45	3,826.0		70.15
8	319	3,454.18	16,415.1		71.21
9	572	18.32	48.5		86.81
10	10,380	75.00	10.9	Upper Marker	113.00

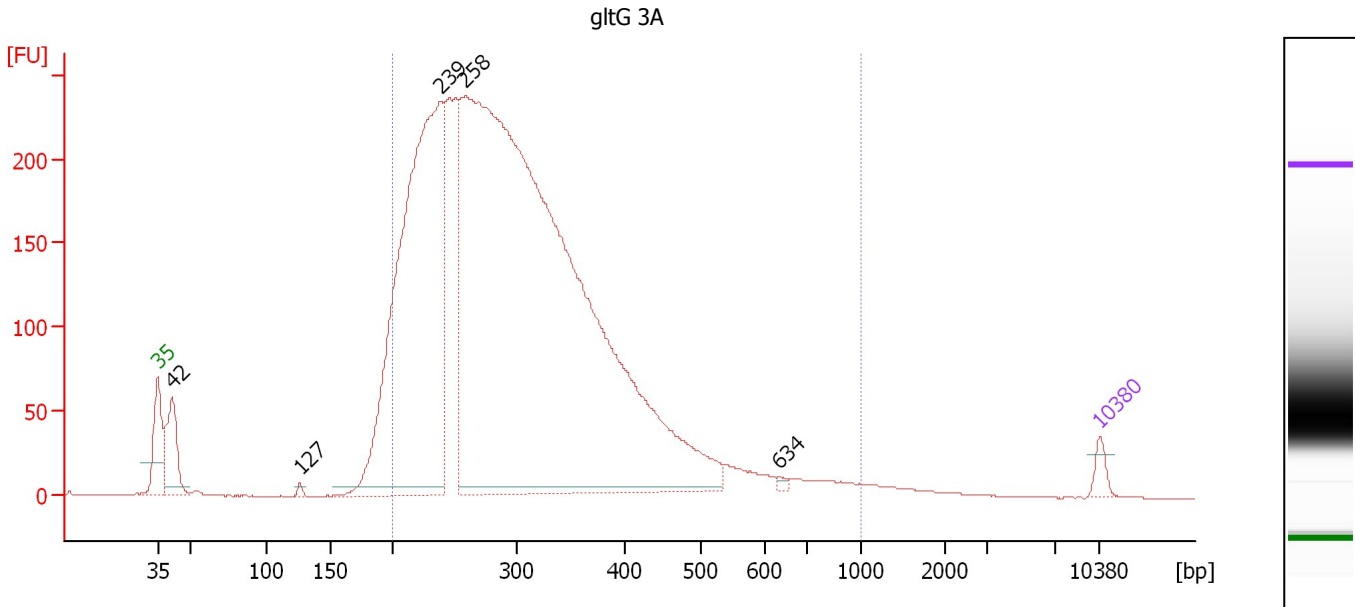
**Region table for sample 8 : gltG 2D**

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	309	4,171.6	64,597.8	12,123.24	93	31.0

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-19\2016-05-19\_001.xad

Created: 5/19/2016 9:52:30 AM  
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**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : gltG 3A**

Number of peaks found: 5                      Corr. Area 1: 4,940.1  
 Noise: 0.2

**Peak table for sample 9 : gltG 3A**

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	612.39	22,036.6		44.12
3	127	29.80	356.0		53.58
4	239	5,913.11	37,563.4		64.05
5	258	15,049.24	88,288.9		65.87
6	634	23.01	54.9		89.22
7	10,380	75.00	10.9	Upper Marker	113.00

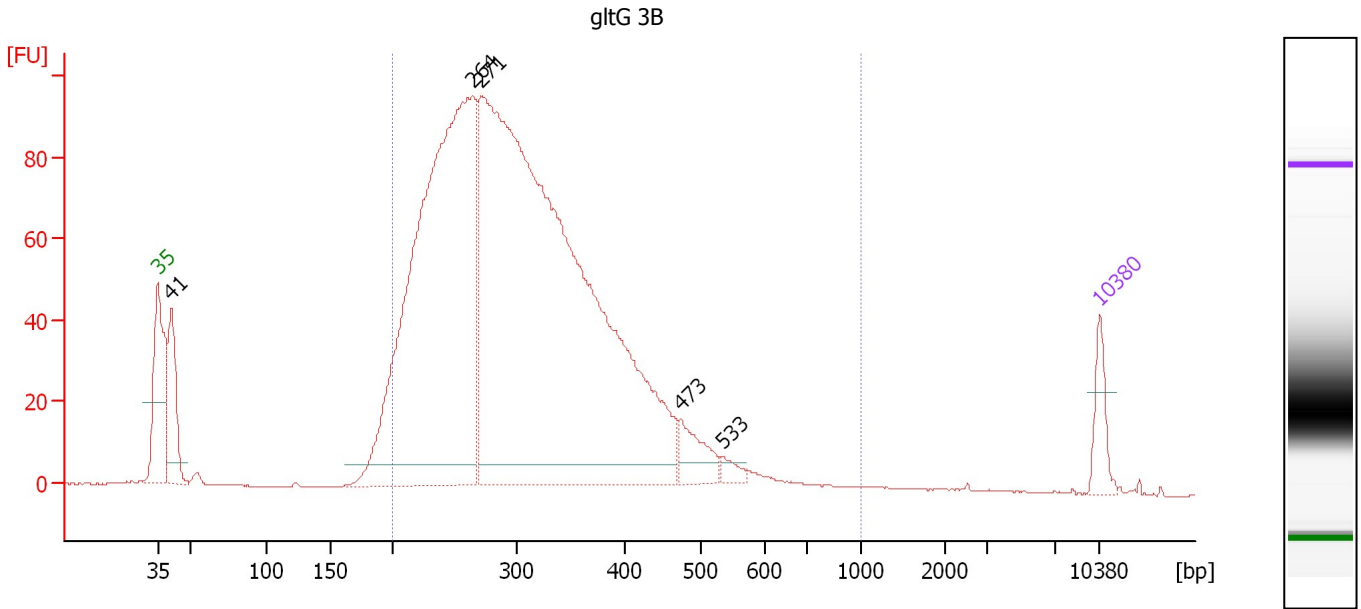
**Region table for sample 9 : gltG 3A**

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	312	4,940.1	109,270.5	20,594.13	92	32.0

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-19\2016-05-19\_001.xad

Created: 5/19/2016 9:52:30 AM  
 Modified: 5/19/2016 10:33:48 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : gltG 3B**

Number of peaks found: 5                      Corr. Area 1: 1,900.4  
 Noise: 0.1

**Peak table for sample 10 : gltG 3B**

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	41	302.87	11,087.0		44.01
3	264	2,601.99	14,918.5		66.42
4	271	4,268.96	23,901.6		67.01
5	473	121.98	390.6		81.88
6	533	33.06	94.0		84.96
7	10,380	75.00	10.9	Upper Marker	113.00

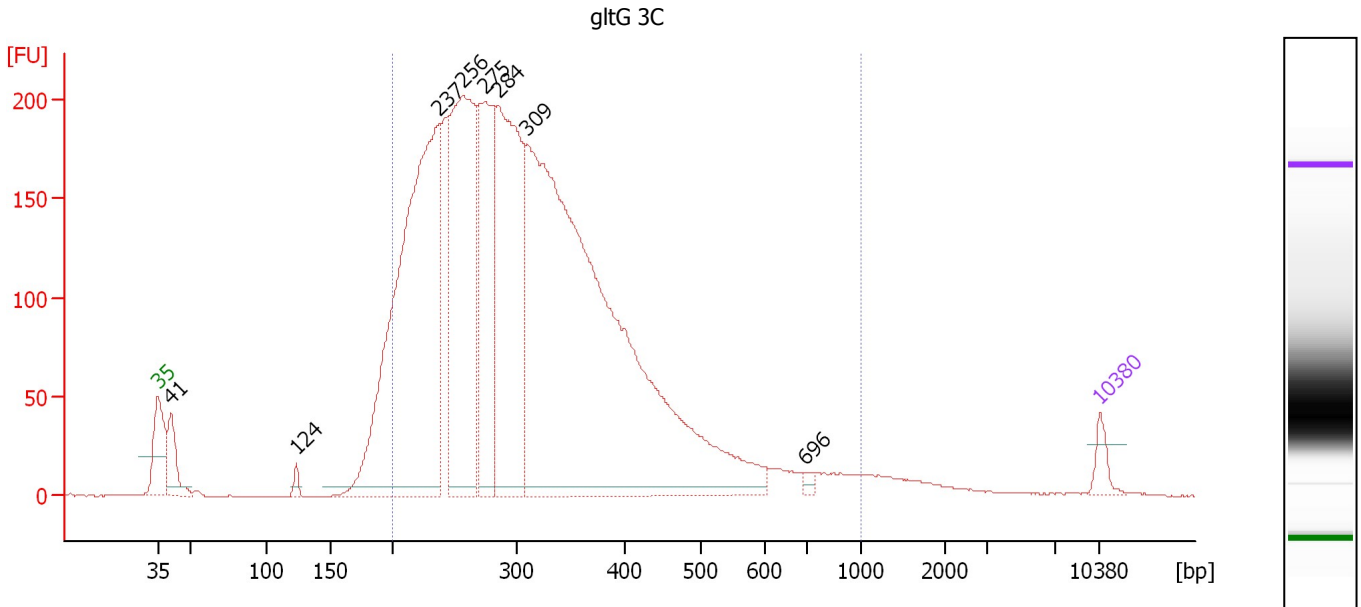
**Region table for sample 10 : gltG 3B**

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	313	1,900.4	34,599.6	6,635.26	93	27.0

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-19\2016-05-19\_001.xad

Created: 5/19/2016 9:52:30 AM  
 Modified: 5/19/2016 10:33:48 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : gltG 3C**

Number of peaks found: 8                      Corr. Area 1: 4,426.7  
 Noise: 0.1

**Peak table for sample 11 : gltG 3C**

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	41	310.55	11,357.7		44.02
3	124	53.50	653.6		53.31
4	237	3,835.09	24,481.9		63.95
5	256	2,285.84	13,532.0		65.66
6	275	1,199.16	6,618.2		67.37
7	284	2,127.42	11,333.5		68.27
8	309	6,504.48	31,845.2		70.47
9	696	33.14	72.1		91.15
10	10,380	75.00	10.9	Upper Marker	113.00

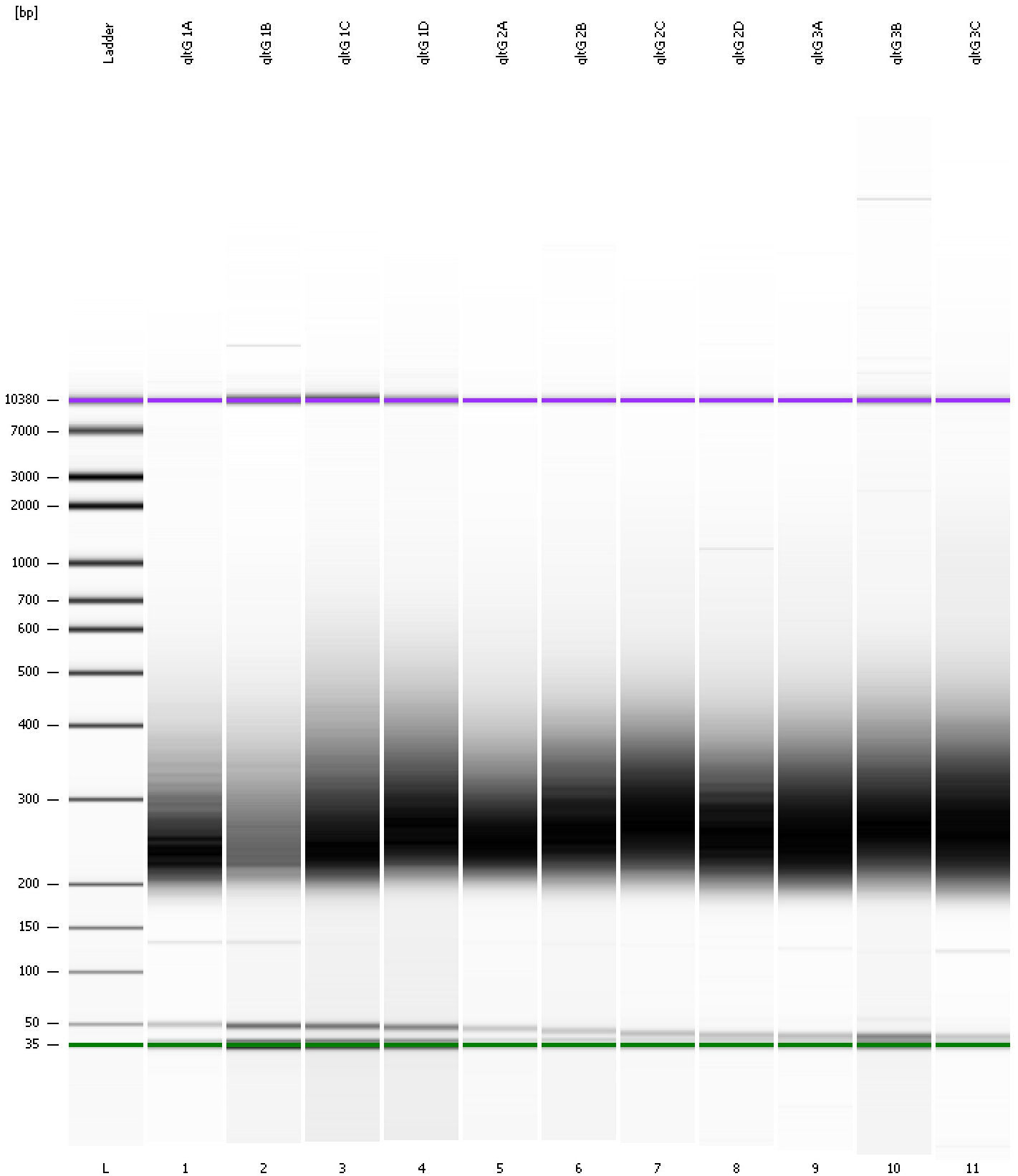
**Region table for sample 11 : gltG 3C**

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	324	4,426.7	80,728.2	15,598.88	91	33.8

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-19\2016-05-19\_001.xad

Created: 5/19/2016 9:52:30 AM  
Modified: 5/19/2016 10:33:48 AM

**Gel Image**





Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-19\2016-05-19\_001.xad

Created: 5/19/2016 9:52:30 AM  
 Modified: 5/19/2016 10:33:48 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		5/19/2016 10:33:47 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\data\2016-05-19\2016-05-19_001.xad)		Instrument	Run		5/19/2016 9:52:35 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		5/19/2016 9:52:35 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		5/19/2016 9:52:35 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		5/19/2016 9:52:35 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		5/19/2016 9:52:35 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		5/19/2016 9:52:35 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		5/19/2016 9:52:35 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1