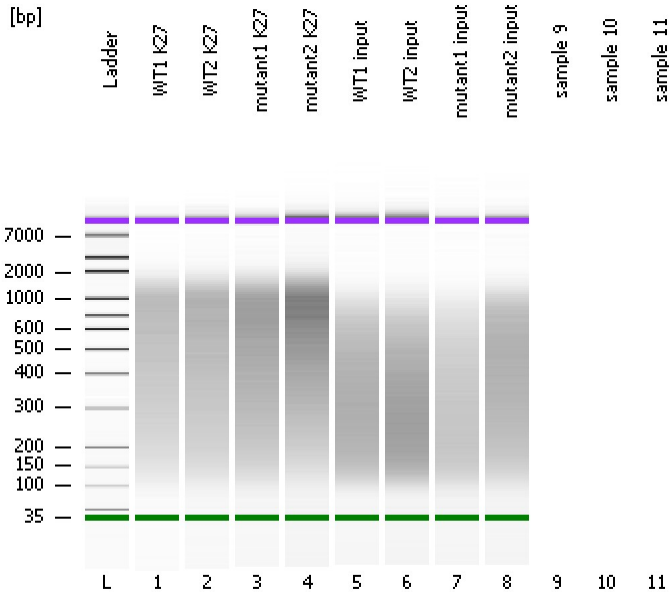


Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-20\2013-05-20\_003.xad

Created: 5/20/2013 1:54:03 PM  
 Modified: 5/20/2013 2:27:40 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

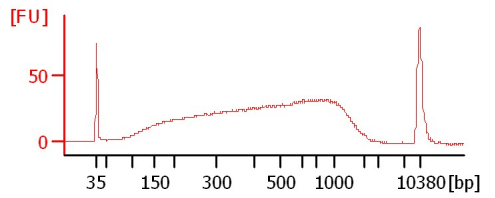
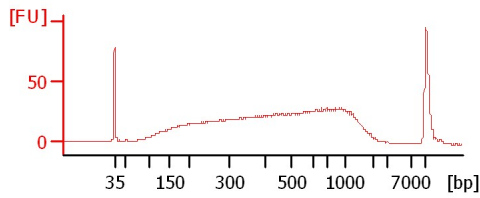
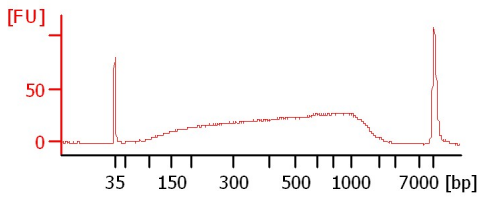
Chip Information:

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

**WT1 K27**

**WT2 K27**

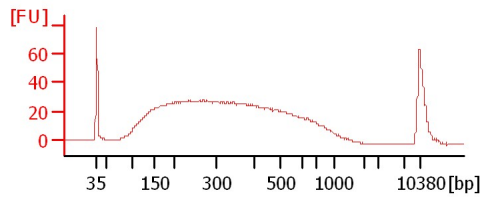
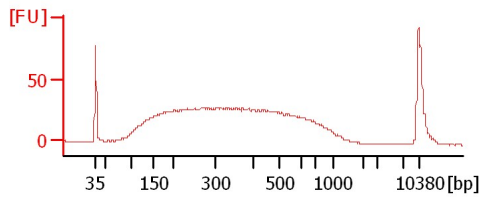
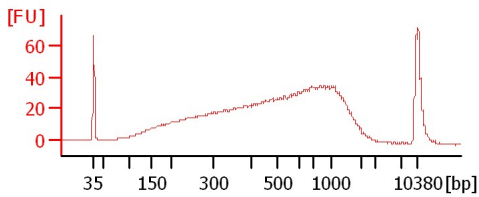
**mutant1 K27**



**mutant2 K27**

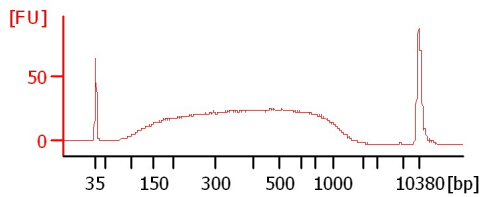
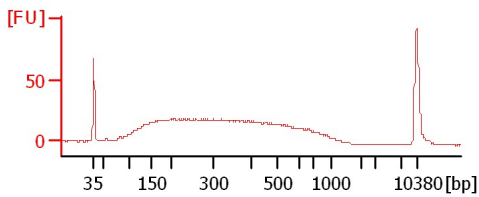
**WT1 input**

**WT2 input**



**mutant1 input**

**mutant2 input**



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-20\2013-05-20\_003.xad

Created: 5/20/2013 1:54:03 PM  
Modified: 5/20/2013 2:27:40 PM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
WT1 K27		<input type="checkbox"/>	✓			
WT2 K27		<input type="checkbox"/>	✓			
mutant1 K27		<input type="checkbox"/>	✓			
mutant2 K27		<input type="checkbox"/>	✓			
WT1 input		<input type="checkbox"/>	✓			
WT2 input		<input type="checkbox"/>	✓			
mutant1 input		<input type="checkbox"/>	✓			
mutant2 input		<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\2013-05-20\2013-05-20\_003.xad

Created: 5/20/2013 1:54:03 PM  
Modified: 5/20/2013 2:27:40 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

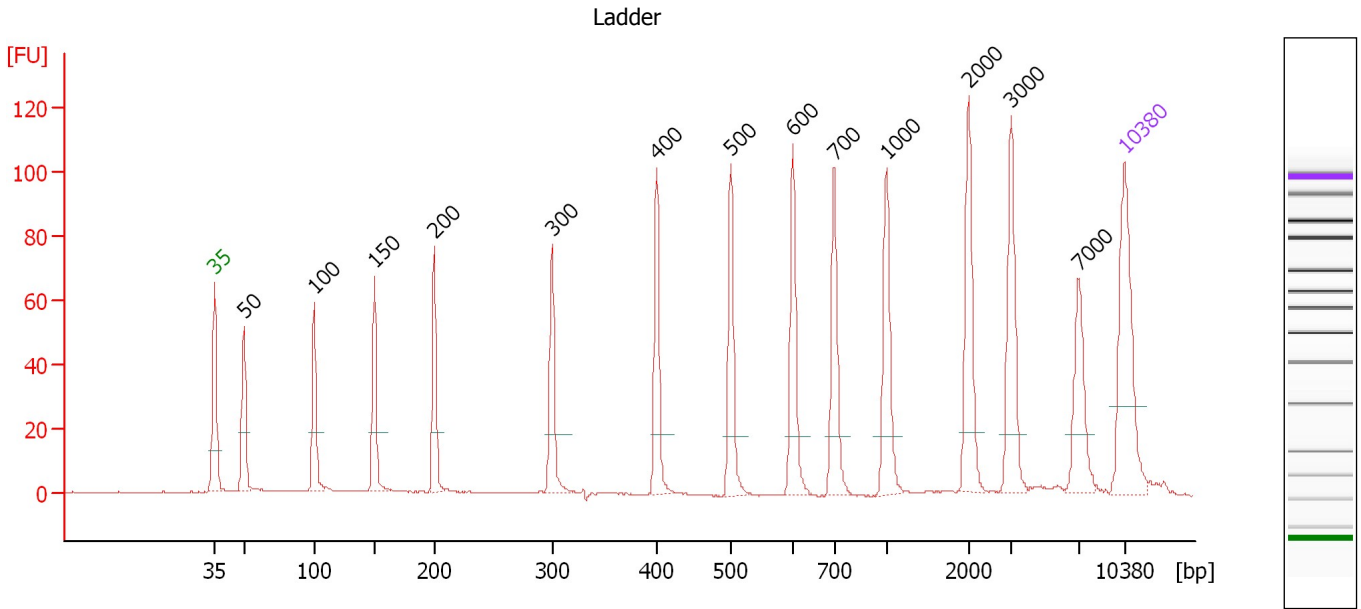
**Ladder**

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\2013-05-20\2013-05-20\_003.xad

Created: 5/20/2013 1:54:03 PM  
 Modified: 5/20/2013 2:27:40 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.2

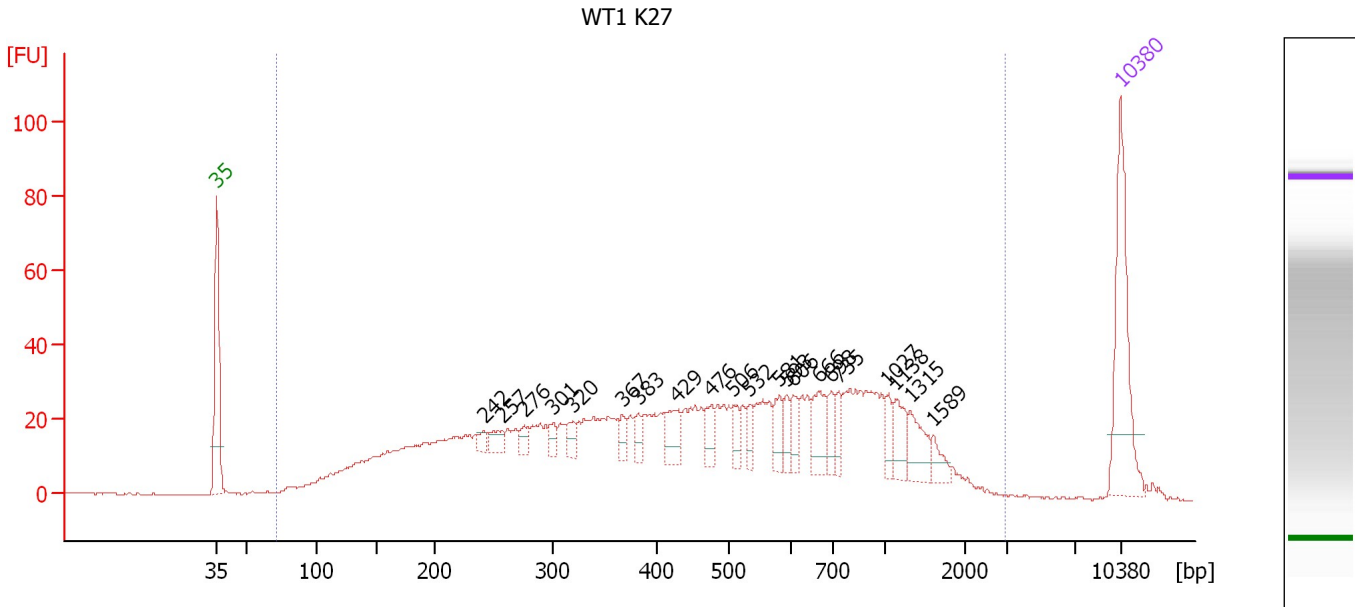
**Peak table for Ladder**

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\2013-05-20\2013-05-20\_003.xad

Created: 5/20/2013 1:54:03 PM  
 Modified: 5/20/2013 2:27:40 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : WT1 K27**

Number of peaks found: 21                      Corr. Area 1: 1,382.4  
 Noise: 0.2

**Peak table for sample 1 : WT1 K27**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	242	7.99	50.1	
3	257	14.75	86.9	
4	276	9.78	53.6	
5	301	10.22	51.5	
6	320	12.90	61.1	
7	367	11.34	46.8	
8	383	11.71	46.4	
9	429	25.07	88.5	
10	476	17.06	54.3	
11	506	13.76	41.2	
12	532	11.80	33.6	
13	581	18.79	49.0	
14	593	12.45	31.8	
15	606	15.34	38.3	
16	666	30.44	69.3	
17	698	14.60	31.7	
18	735	13.45	27.7	
19	1,027	11.29	16.7	
20	1,138	22.63	30.1	
21	1,315	24.11	27.8	
22	1,589	10.84	10.3	
23	10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-20\2013-05-20\_003.xad

Created: 5/20/2013 1:54:03 PM  
Modified: 5/20/2013 2:27:40 PM

**Electropherogram Summary Continued ...**

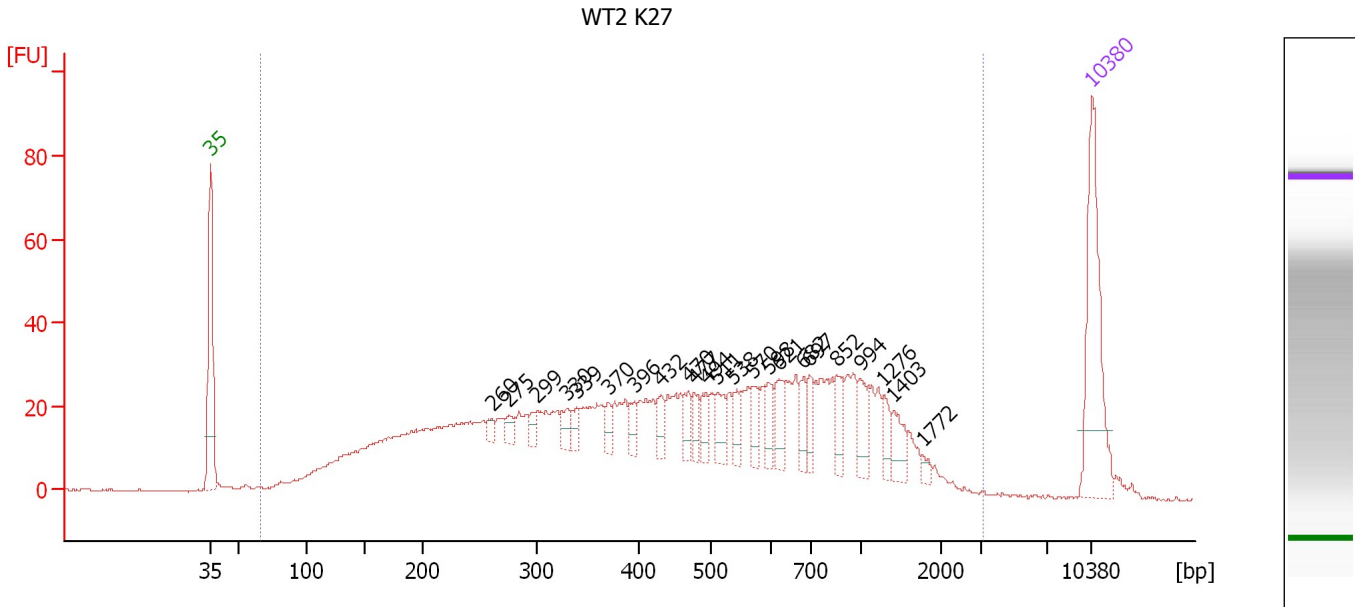
... Region table for sample 1 : WT1 K27

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
72	2,933	567	7,529.9	1,526.97	1,382.4	99	70.2	■

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-20\2013-05-20\_003.xad

Created: 5/20/2013 1:54:03 PM  
 Modified: 5/20/2013 2:27:40 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : WT2 K27**

Number of peaks found: 23                      Corr. Area 1: 1,386.2  
 Noise: 0.2

**Peak table for sample 2 : WT2 K27**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	260	7.46	43.4	
3	275	9.80	54.0	
4	299	9.12	46.2	
5	330	13.08	60.1	
6	339	10.03	44.8	
7	370	9.78	40.0	
8	396	12.90	49.4	
9	432	14.39	50.5	
10	470	14.33	46.2	
11	477	12.62	40.1	
12	494	15.10	46.3	
13	511	18.15	53.9	
14	538	11.88	33.4	
15	570	13.32	35.4	
16	598	13.45	34.1	
17	621	22.09	53.9	
18	682	14.65	32.6	
19	697	14.03	30.5	
20	852	16.45	29.3	
21	994	18.29	27.9	
22	1,276	11.99	14.2	
23	1,403	16.70	18.0	
24	1,772	4.08	3.5	
25	10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-20\2013-05-20\_003.xad

Created: 5/20/2013 1:54:03 PM  
Modified: 5/20/2013 2:27:40 PM

**Electropherogram Summary Continued ...**

... Region table for sample 2 : WT2 K27

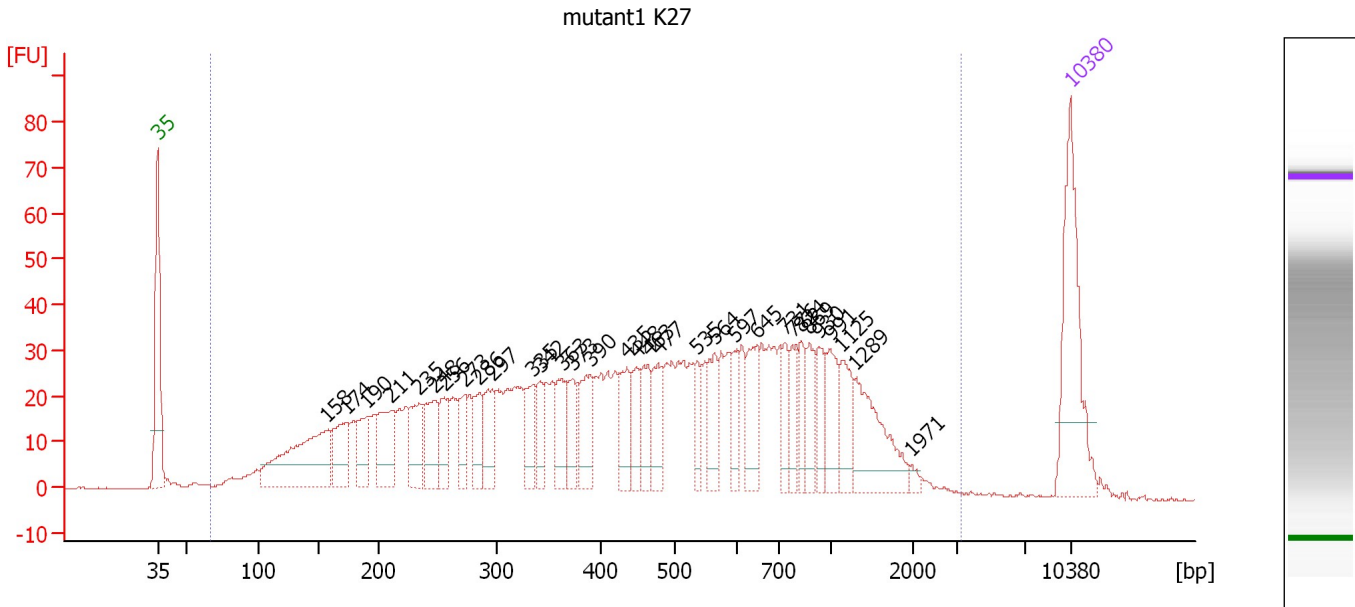
From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
65	3,055	564	7,583.8	1,506.20	1,386.2	99	71.1	■



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-20\2013-05-20\_003.xad

Created: 5/20/2013 1:54:03 PM  
 Modified: 5/20/2013 2:27:40 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : mutant1 K27**

Number of peaks found: 32                      Corr. Area 1: 1,577.1  
 Noise: 0.2

**Peak table for sample 3 : mutant1 K27**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	158	119.56	1,148.1	
3	174	41.60	362.8	
4	190	31.92	254.3	
5	211	50.08	358.8	
6	235	39.95	257.9	
7	248	40.02	244.9	
8	256	26.11	154.8	
9	273	25.77	142.9	
10	286	24.04	127.5	
11	297	35.45	180.8	
12	335	23.20	104.8	
13	342	22.14	98.0	
14	363	27.77	116.0	
15	373	30.09	122.3	
16	390	37.18	144.4	
17	435	31.38	109.3	
18	448	24.27	82.1	
19	463	27.30	89.3	
20	477	30.14	95.8	
21	535	18.80	53.3	
22	564	27.41	73.7	
23	597	18.81	47.7	
24	645	35.31	82.9	
25	731	19.32	40.1	
26	776	18.61	36.3	

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-20\2013-05-20\_003.xad


Created: 5/20/2013 1:54:03 PM  
 Modified: 5/20/2013 2:27:40 PM

### Electropherogram Summary Continued ...

#### ... Peak table for sample 3 : mutant1 K27

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
27	824	18.31	33.7	
28	869	23.03	40.1	
29	930	21.95	35.7	
30	991	27.67	42.3	
31	1,125	27.68	37.3	
32	1,289	56.95	67.0	
33	1,971	3.14	2.4	
34	▶ 10,380	75.00	10.9	Upper Marker

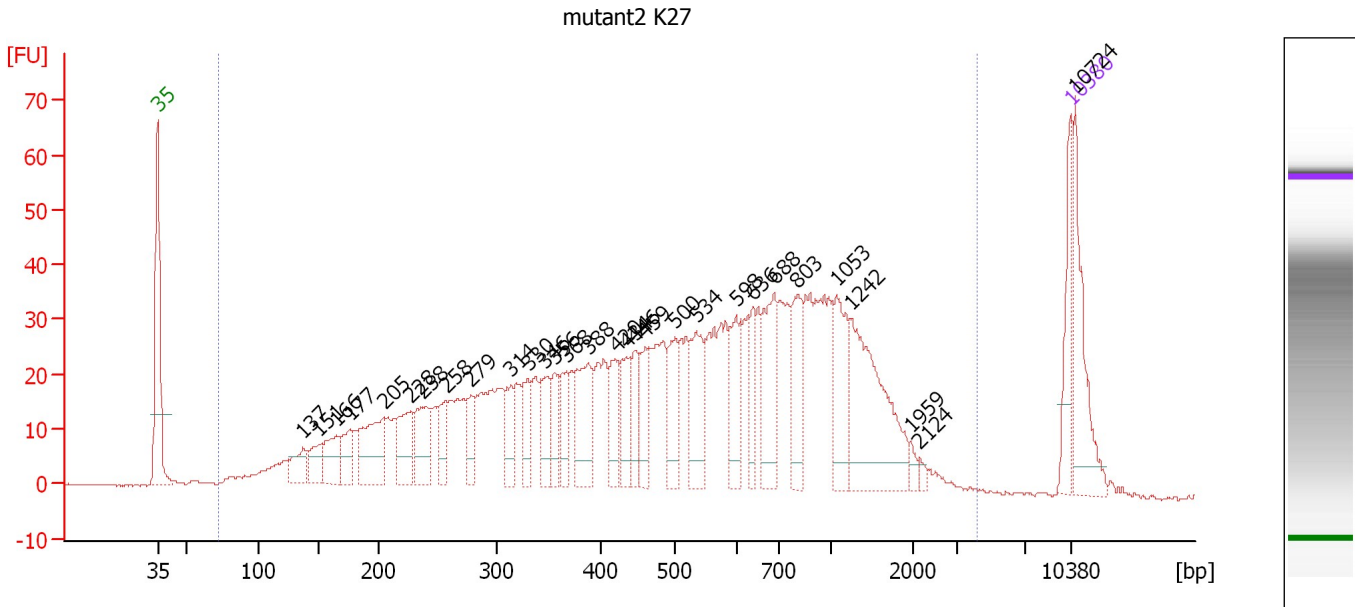
#### Region table for sample 3 : mutant1 K27

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
67	3,275	562	8,310.9	1,671.71	1,577.1	99	70.6	

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-20\2013-05-20\_003.xad

Created: 5/20/2013 1:54:03 PM  
 Modified: 5/20/2013 2:27:40 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : mutant2 K27**

Number of peaks found: 30                      Corr. Area 1: 1,417.7  
 Noise: 0.1

**Peak table for sample 4 : mutant2 K27**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	137	61.51	678.6	
3	151	56.24	565.3	
4	166	80.42	735.4	
5	177	65.38	560.3	
6	205	145.77	1,078.2	
7	228	101.00	670.2	
8	238	99.80	636.4	
9	258	56.52	332.3	
10	279	50.18	272.3	
11	314	62.88	303.4	
12	330	60.09	275.9	
13	346	76.13	333.3	
14	356	52.56	223.7	
15	368	55.95	230.6	
16	388	131.87	515.0	
17	420	72.72	262.1	
18	434	65.67	229.5	
19	446	54.81	186.2	
20	459	68.34	225.5	
21	500	88.06	267.0	
22	534	112.46	319.0	
23	598	82.11	208.2	
24	636	59.60	141.9	
25	688	134.92	297.2	
26	803	93.66	176.7	

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-20\2013-05-20\_003.xad


Created: 5/20/2013 1:54:03 PM  
 Modified: 5/20/2013 2:27:40 PM

### Electropherogram Summary Continued ...

#### ... Peak table for sample 4 : mutant2 K27

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
27	1,053	111.00	159.7	
28	1,242	236.37	288.3	
29	1,959	11.87	9.2	
30	2,124	8.00	5.7	
31	10,380	75.00	10.9	Upper Marker
32	10,724	0.00	0.0	

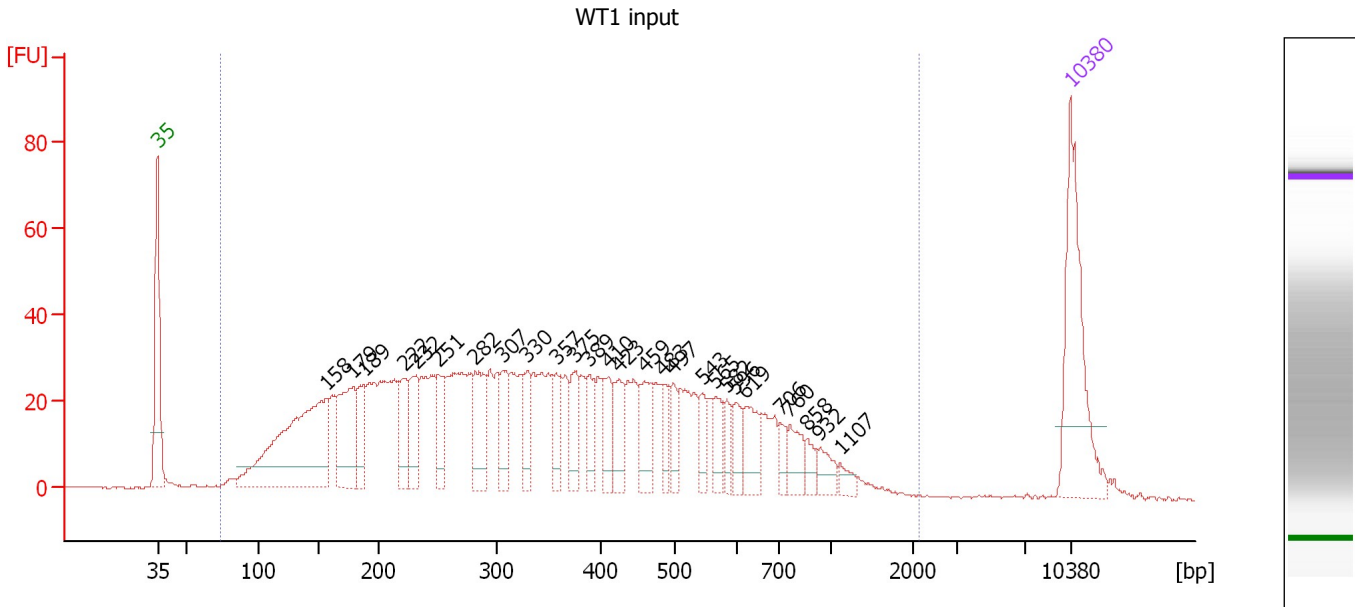
#### Region table for sample 4 : mutant2 K27

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
72	4,205	635	18,966.8	4,304.72	1,417.7	95	71.4	

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-20\2013-05-20\_003.xad

Created: 5/20/2013 1:54:03 PM  
 Modified: 5/20/2013 2:27:40 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : WT1 input**

Number of peaks found: 27                      Corr. Area 1: 1,518.6  
 Noise: 0.2


**Peak table for sample 5 : WT1 input**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	158	195.80	1,883.0	
3	179	74.29	629.7	
4	189	29.11	233.9	
5	222	34.72	237.0	
6	232	38.90	254.2	
7	251	29.33	176.7	
8	282	47.49	255.3	
9	307	28.52	141.0	
10	330	23.22	106.7	
11	357	23.12	98.0	
12	375	27.02	109.2	
13	389	19.71	76.8	
14	410	24.50	90.6	
15	423	26.50	94.9	
16	459	30.97	102.2	
17	483	16.89	53.0	
18	497	16.48	50.2	
19	543	15.18	42.4	
20	565	18.36	49.2	
21	582	12.44	32.4	
22	596	15.54	39.5	
23	619	26.11	63.9	
24	706	9.98	21.4	
25	760	17.97	35.8	
26	858	8.63	15.2	


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-20\2013-05-20\_003.xad

Created: 5/20/2013 1:54:03 PM  
Modified: 5/20/2013 2:27:40 PM

**Electropherogram Summary Continued ...****... Peak table for sample 5 : WT1 input**

Peak	Size [bp]	Conc. [pg/ $\mu$ l]	Molarity [pmol/l]	Observations
27	932	12.68	20.6	
28	1,107	6.67	9.1	
29	 10,380	75.00	10.9	Upper Marker

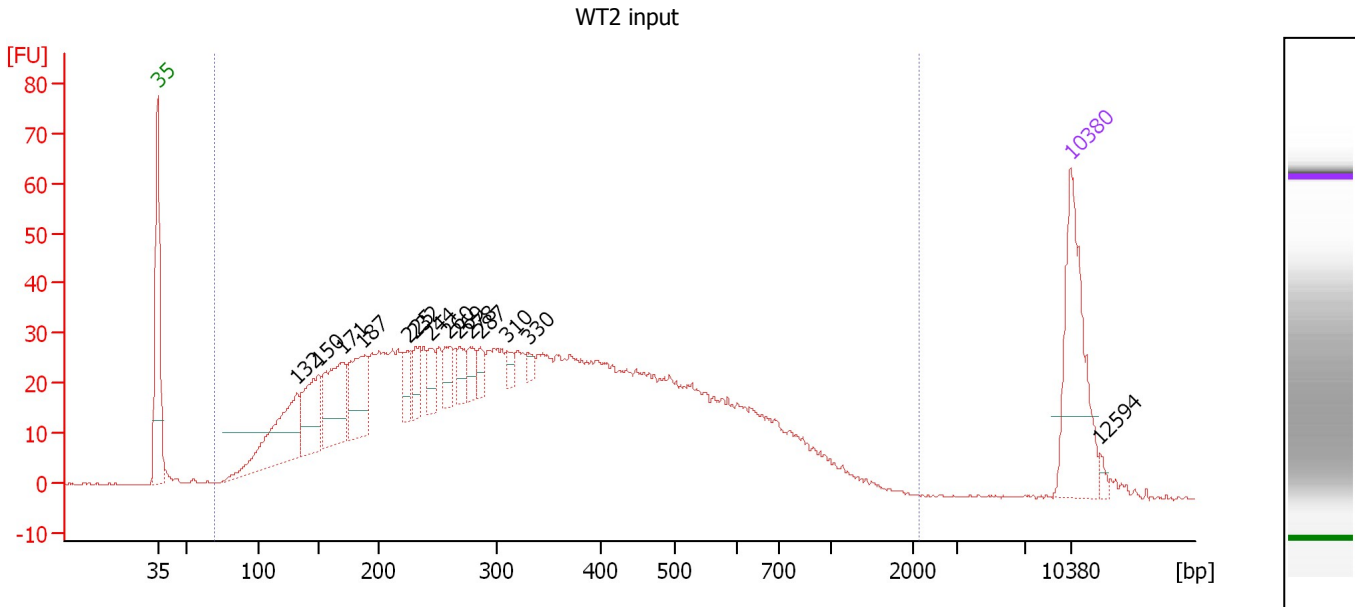
**Region table for sample 5 : WT1 input**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/ $\mu$ l]	Corr. Area	% of Total	Size distribution in CV [%]	Color
73	2,112	388	9,297.5	1,546.21	1,518.6	99	57.1	

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-20\2013-05-20\_003.xad

Created: 5/20/2013 1:54:03 PM  
 Modified: 5/20/2013 2:27:40 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : WT2 input**

Number of peaks found: 14      Corr. Area 1: 1,504.2  
 Noise: 0.2

**Peak table for sample 6 : WT2 input**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	132	99.46	1,141.1	
3	150	61.57	620.7	
4	171	76.82	682.0	
5	187	61.57	498.6	
6	225	21.48	144.5	
7	232	18.32	119.8	
8	244	17.41	107.9	
9	260	18.07	105.3	
10	269	16.13	91.0	
11	278	14.79	80.7	
12	287	11.62	61.4	
13	310	8.21	40.1	
14	330	5.75	26.4	
15	10,380	75.00	10.9	Upper Marker
16	12,594	0.00	0.0	

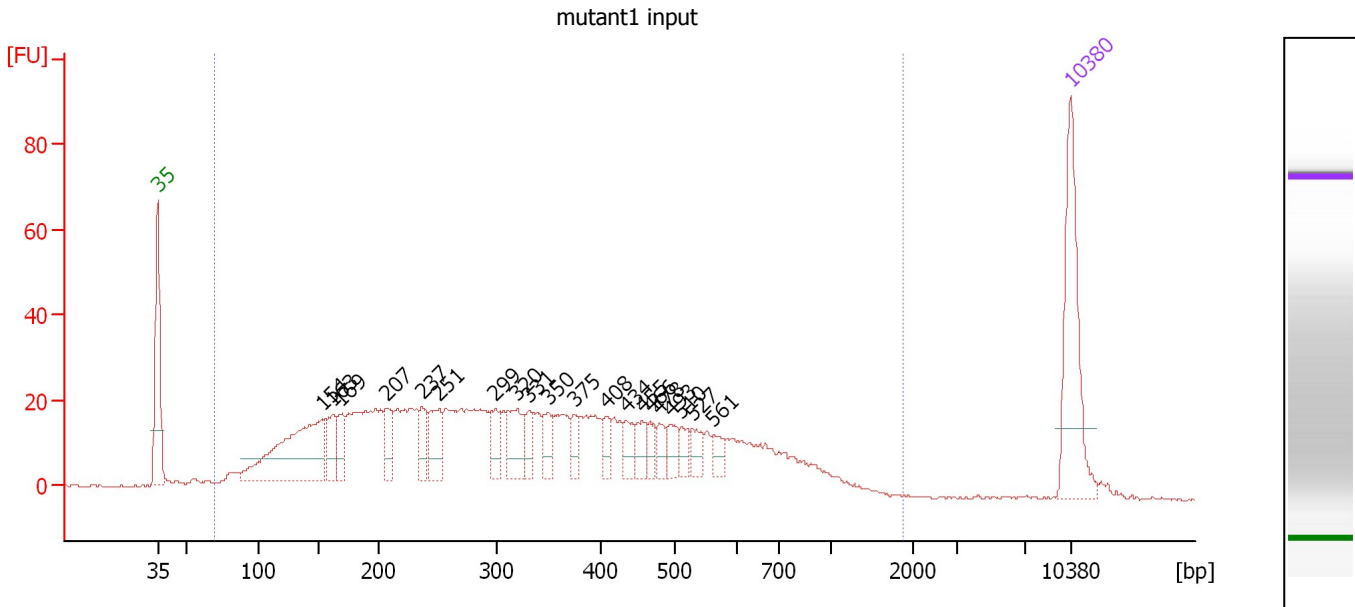
**Region table for sample 6 : WT2 input**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
69	2,119	368	11,636.3	1,858.57	1,504.2	99	57.8	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-20\2013-05-20\_003.xad

Created: 5/20/2013 1:54:03 PM  
 Modified: 5/20/2013 2:27:40 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : mutant1 input**

Number of peaks found: 20                      Corr. Area 1: 1,048.4  
 Noise: 0.2

**Peak table for sample 7 : mutant1 input**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	154	159.30	1,571.5	
3	163	33.53	312.3	
4	169	26.40	236.4	
5	207	28.68	210.4	
6	237	21.46	137.1	
7	251	34.20	206.0	
8	299	21.81	110.3	
9	320	36.99	175.1	
10	331	15.95	73.0	
11	350	18.16	78.6	
12	375	13.61	55.0	
13	408	12.39	46.0	
14	434	15.42	53.8	
15	455	15.89	52.9	
16	466	10.49	34.1	
17	478	12.44	39.4	
18	493	14.34	44.1	
19	510	11.27	33.5	
20	527	14.35	41.2	
21	561	10.74	29.0	
22	10,380	75.00	10.9	Upper Marker

**Region table for sample 7 : mutant1 input**

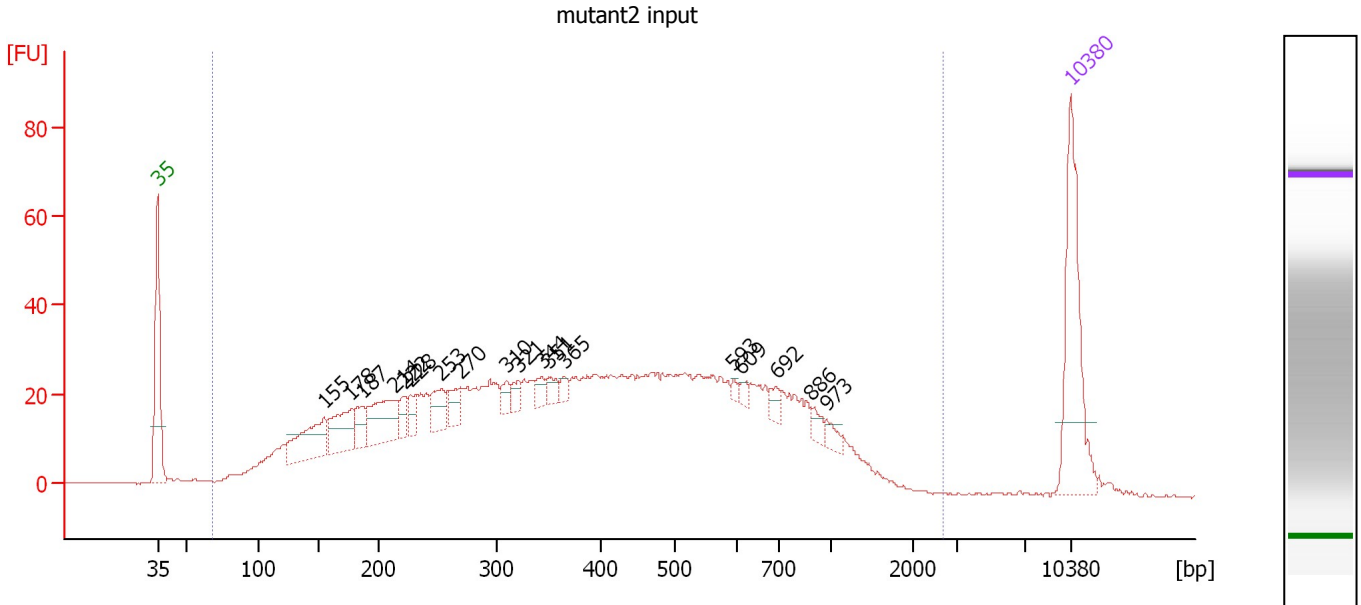
From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
69	1,869	364	8,375.2	1,296.40	1,048.4	98	56.4	Blue



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-20\2013-05-20\_003.xad

Created: 5/20/2013 1:54:03 PM  
 Modified: 5/20/2013 2:27:40 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : mutant2 input**

Number of peaks found: 18                      Corr. Area 1: 1,388.9  
 Noise: 0.2

**Peak table for sample 8 : mutant2 input**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	155	58.40	569.7	
3	178	44.29	377.8	
4	187	18.99	153.7	
5	214	48.58	343.5	
6	222	12.37	84.4	
7	228	14.00	93.2	
8	253	21.94	131.3	
9	270	16.77	94.2	
10	310	9.30	45.5	
11	321	8.71	41.1	
12	344	9.17	40.4	
13	351	8.71	37.6	
14	365	5.50	22.8	
15	593	3.17	8.1	
16	609	4.17	10.4	
17	692	7.24	15.8	
18	886	7.00	12.0	
19	973	6.42	10.0	
20	10,380	75.00	10.9	Upper Marker

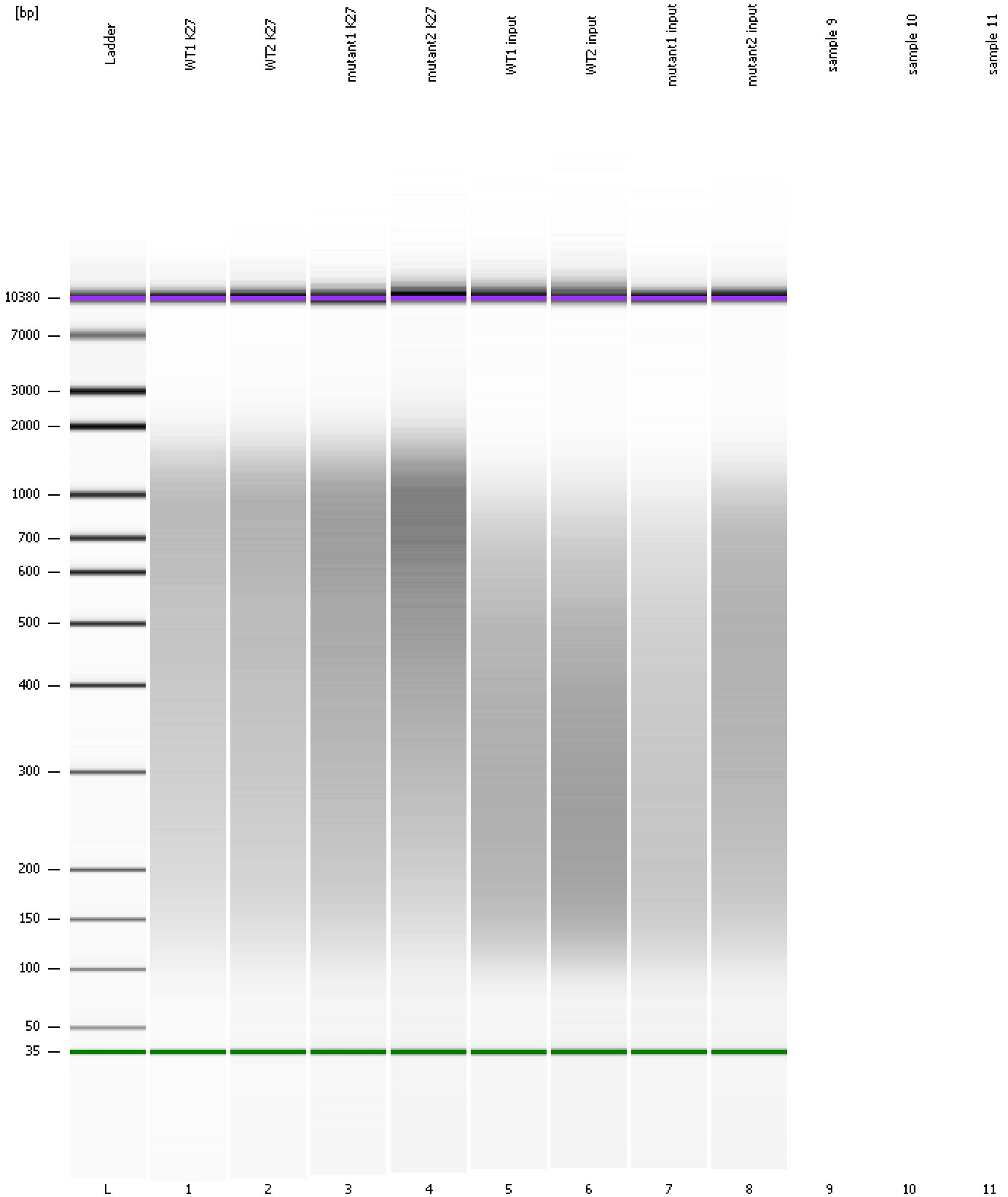
**Region table for sample 8 : mutant2 input**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
68	2,689	448	9,070.1	1,658.74	1,388.9	99	60.6	Blue

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-20\2013-05-20\_003.xad

Created: 5/20/2013 1:54:03 PM  
Modified: 5/20/2013 2:27:40 PM

**Gel Image**



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-20\2013-05-20\_003.xad

Created: 5/20/2013 1:54:03 PM  
Modified: 5/20/2013 2:27:40 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\2013-05-20\2013-05-20\_003.xad

Created: 5/20/2013 1:54:03 PM  
 Modified: 5/20/2013 2:27:40 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		5/20/2013 2:26:03 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2013-05-20\2013-05-20_003.xad)		Instrument	Run		5/20/2013 1:54:03 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		5/20/2013 1:54:03 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		5/20/2013 1:54:03 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		5/20/2013 1:54:03 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		5/20/2013 1:54:03 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		5/20/2013 1:54:03 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		5/20/2013 1:54:03 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1