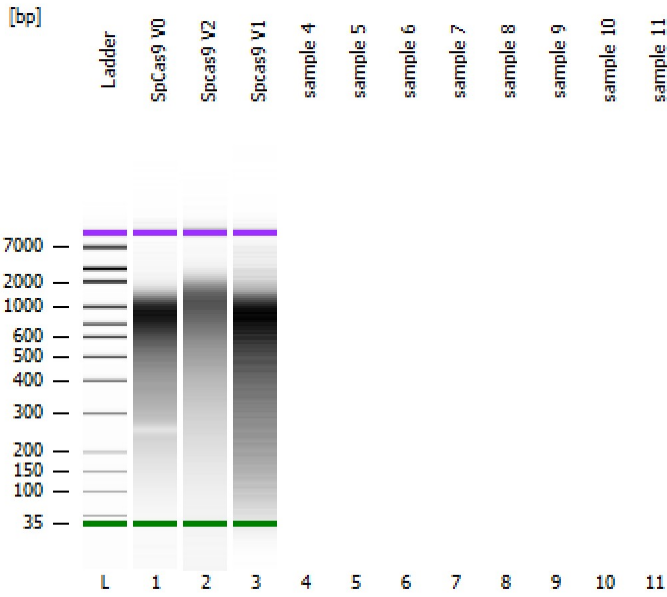


Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-03-12\_001.xad

Created: 3/12/2020 9:27:21 AM  
 Modified: 3/12/2020 9:45:54 AM

**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 (x86)\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

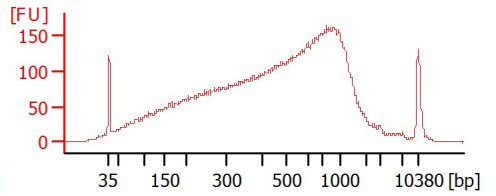
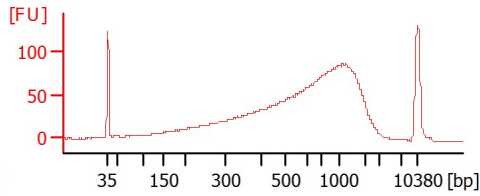
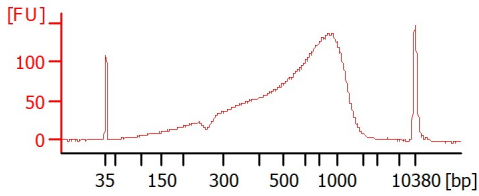
Chip Information:

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

**SpCas9 V0**

**SpCas9 V2**

**SpCas9 V1**



Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-03-12\_001.xad

Created: 3/12/2020 9:27:21 AM  
 Modified: 3/12/2020 9:45:54 AM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
SpCas9 V0		<input type="checkbox"/>	✓			
Spcas9 V2		<input type="checkbox"/>	✓			
Spcas9 V1		<input type="checkbox"/>	✓			
sample 4		<input type="checkbox"/>				
sample 5		<input type="checkbox"/>				
sample 6		<input type="checkbox"/>				
sample 7		<input type="checkbox"/>				
sample 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: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-03-12\_001.xad

Created: 3/12/2020 9:27:21 AM  
 Modified: 3/12/2020 9:45:54 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

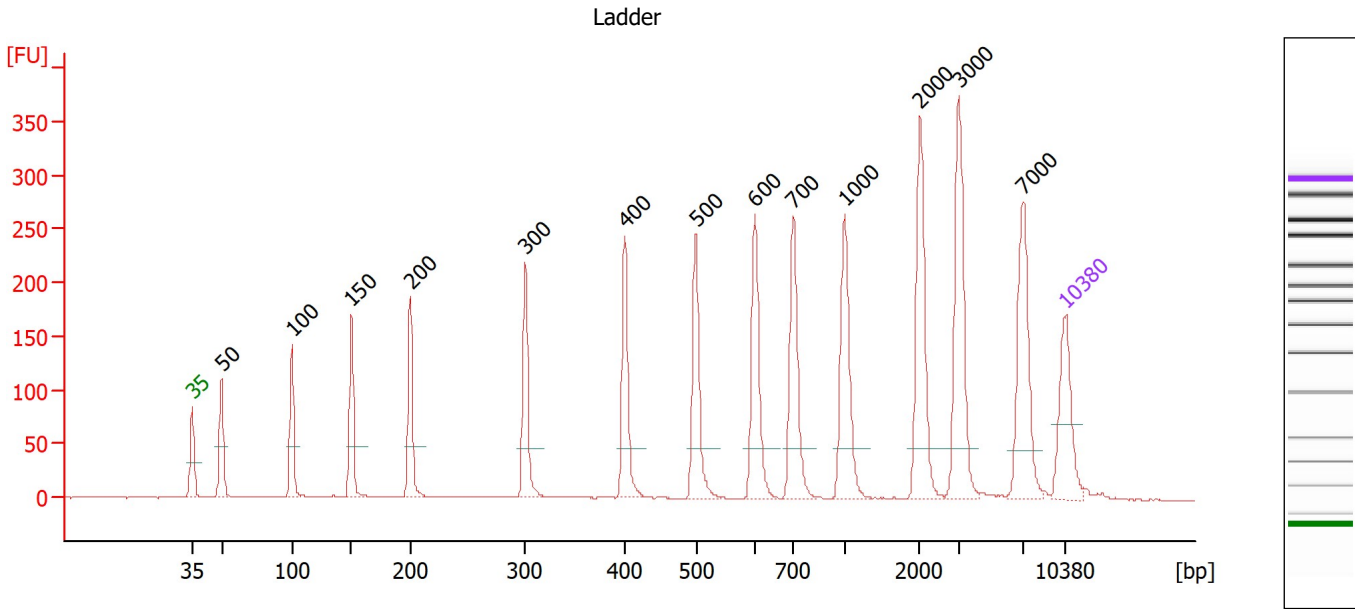
**Ladder**

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: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-03-12\_001.xad

Created: 3/12/2020 9:27:21 AM  
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**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.3

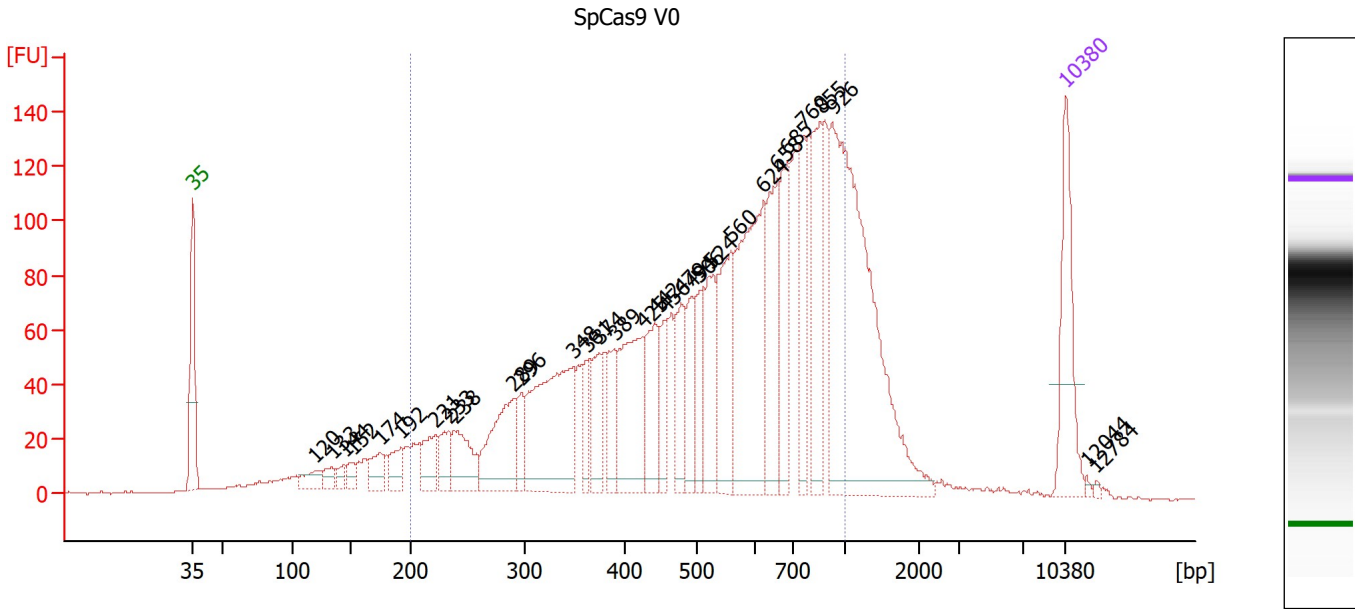
**Peak table for Ladder**

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: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-03-12\_001.xad

Created: 3/12/2020 9:27:21 AM  
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**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : SpCas9 V0**

Number of peaks found: 31                      Corr. Area 1: 2,839.6  
 Noise: 0.4

**Peak table for sample 1 : SpCas9 V0**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	120	25.02	316.5	
3	133	16.27	184.8	
4	144	11.42	120.4	
5	152	14.80	148.0	
6	174	30.96	268.9	
7	192	31.94	252.0	
8	221	42.02	288.1	
9	233	35.82	232.9	
10	238	61.67	393.3	
11	289	105.85	554.2	
12	296	31.23	159.6	
13	348	197.83	862.0	
14	361	33.64	141.1	
15	374	52.42	212.4	
16	389	44.74	174.2	
17	425	128.67	459.1	
18	442	72.08	247.2	
19	456	41.52	138.1	
20	479	59.99	189.7	
21	494	49.02	150.4	
22	506	43.51	130.2	
23	524	76.00	219.7	
24	560	105.87	286.6	
25	624	211.97	514.7	
26	658	106.41	245.0	

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-03-12\_001.xad

Created: 3/12/2020 9:27:21 AM  
 Modified: 3/12/2020 9:45:54 AM

**Electropherogram Summary Continued ...**

**... Peak table for sample 1 : SpCas9 V0**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
27	685	85.53	189.2	
28	760	69.79	139.1	
29	855	92.93	164.7	
30	926	399.76	654.1	
31	10,380	75.00	10.9	Upper Marker
32	12,044	0.00	0.0	
33	12,784	0.00	0.0	

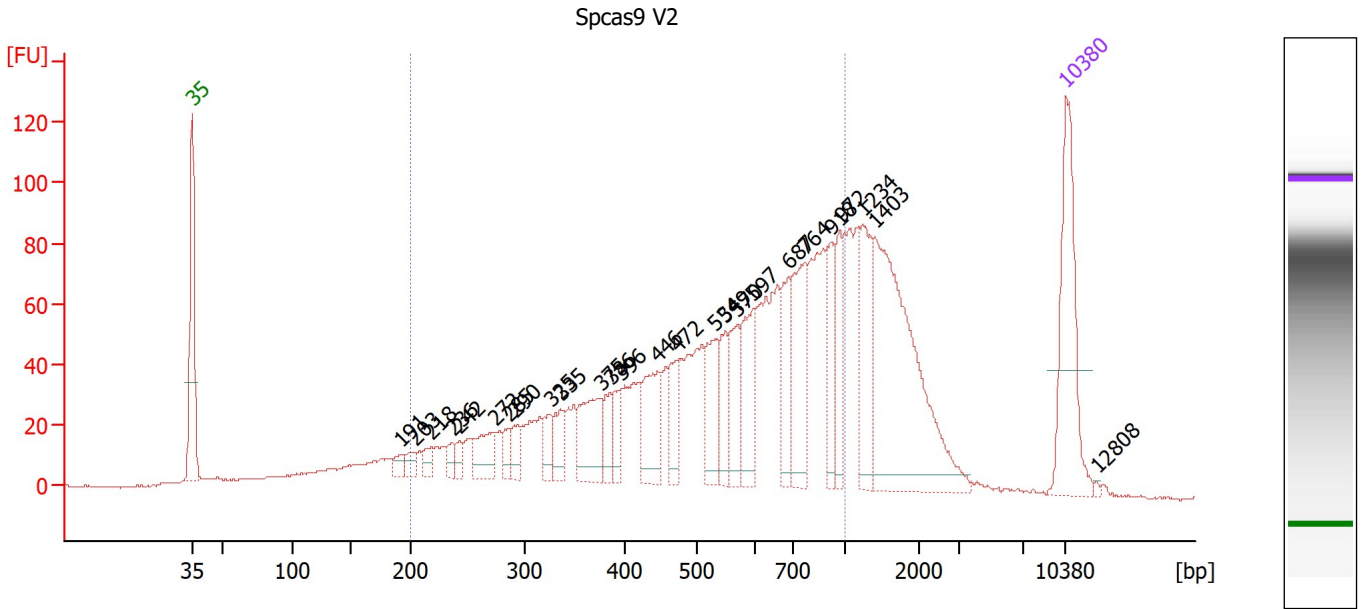
**Region table for sample 1 : SpCas9 V0**

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,000	2,839.6	80	562	36.5	2,243.34	7,584.9	

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-03-12\_001.xad

Created: 3/12/2020 9:27:21 AM  
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**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : Spcas9 V2**

Number of peaks found: 26                      Corr. Area 1: 1,765.4  
 Noise: 0.4

**Peak table for sample 2 : Spcas9 V2**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	191	8.88	70.3	
3	203	9.90	73.8	
4	218	10.12	70.5	
5	236	9.52	61.1	
6	242	9.42	59.0	
7	272	32.86	182.8	
8	285	11.53	61.3	
9	290	16.90	88.4	
10	325	15.79	73.7	
11	335	23.89	108.1	
12	375	53.24	215.2	
13	386	19.58	76.9	
14	396	20.19	77.2	
15	446	46.82	159.0	
16	472	28.16	90.4	
17	534	41.26	117.1	
18	549	29.90	82.5	
19	570	37.66	100.2	
20	597	50.15	127.3	
21	687	38.32	84.5	
22	764	69.22	137.2	
23	918	35.24	58.1	
24	972	30.68	47.8	
25	1,234	54.48	66.9	
26	1,403	176.48	190.7	

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-03-12\_001.xad

Created: 3/12/2020 9:27:21 AM  
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**Electropherogram Summary Continued ...**

**... Peak table for sample 2 : Spcas9 V2**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
27	10,380	75.00	10.9	Upper Marker
28	12,808	0.00	0.0	

**Region table for sample 2 : Spcas9 V2**

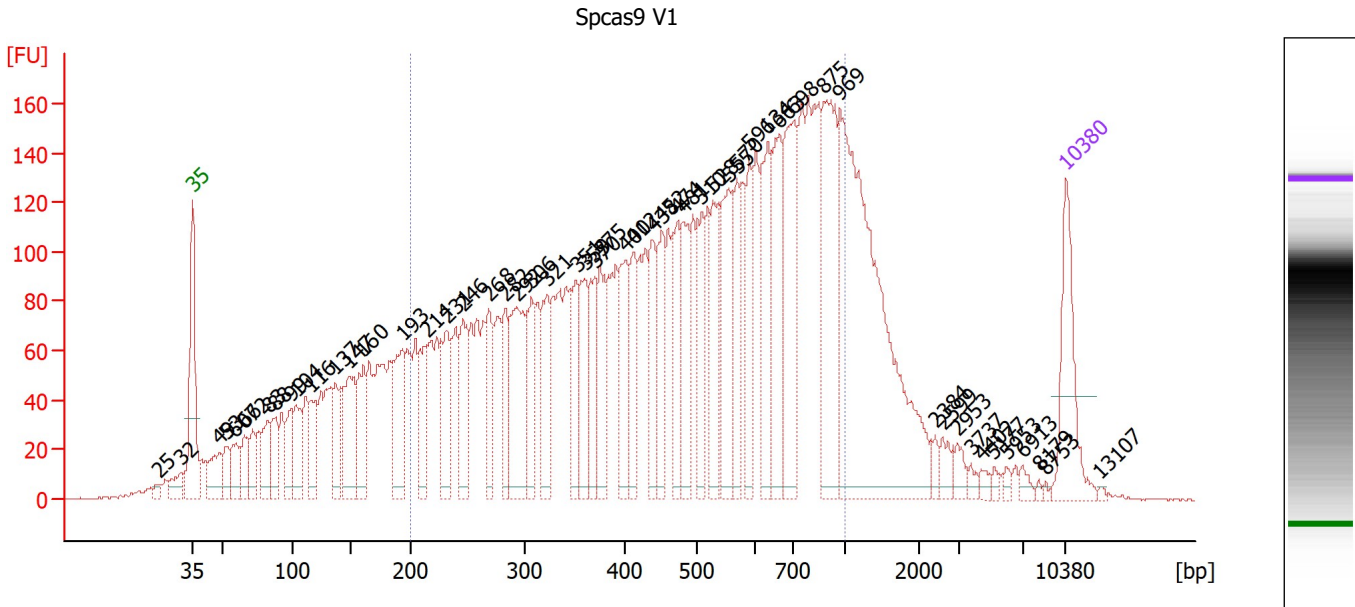
From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,000	1,765.4	69	555	37.3	1,179.68	4,076.8	■



Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-03-12\_001.xad

Created: 3/12/2020 9:27:21 AM  
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**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : Spcas9 V1**

Number of peaks found: 55                      Corr. Area 1: 4,580.0  
 Noise: 0.5

**Peak table for sample 3 : Spcas9 V1**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	25	0.00	0.0	
2	32	0.00	0.0	
3	35	125.00	5,411.3	Lower Marker
4	49	59.01	1,832.8	
5	53	32.11	911.1	
6	60	43.95	1,114.0	
7	66	39.95	915.2	
8	72	40.07	842.1	
9	83	60.86	1,114.9	
10	88	47.39	817.8	
11	99	53.39	814.8	
12	104	56.52	826.0	
13	116	58.42	761.0	
14	137	58.21	646.0	
15	147	96.59	994.5	
16	160	79.12	747.8	
17	193	90.69	711.3	
18	214	66.24	469.4	
19	231	91.84	601.1	
20	246	79.31	488.4	
21	268	64.25	363.4	
22	282	62.64	336.0	
23	292	129.79	673.8	
24	306	76.67	380.1	
25	321	71.24	335.9	
26	351	62.00	267.7	

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-03-12\_001.xad

Created: 3/12/2020 9:27:21 AM  
 Modified: 3/12/2020 9:45:54 AM

**Electropherogram Summary Continued ...**

**... Peak table for sample 3 : Spcas9 V1**

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
27	359	66.71	281.8	
28	370	70.02	287.1	
29	375	79.82	322.5	
30	400	80.08	303.0	
31	412	62.06	228.1	
32	438	63.73	220.3	
33	452	74.56	250.0	
34	474	66.41	212.4	
35	481	82.31	259.1	
36	510	76.65	227.7	
37	528	78.01	223.7	
38	555	103.29	282.0	
39	570	67.76	180.0	
40	591	68.78	176.4	
41	634	104.58	250.0	
42	663	103.19	235.8	
43	698	143.43	311.2	
44	875	164.90	285.6	
45	969	432.99	676.8	
46	2,384	9.12	5.8	
47	2,599	12.70	7.4	
48	2,953	12.83	6.6	
49	3,737	6.06	2.5	
50	4,402	6.07	2.1	
51	5,177	4.51	1.3	
52	5,953	4.66	1.2	
53	6,913	6.82	1.5	
54	8,179	1.94	0.4	
55	8,753	1.80	0.3	
56	10,380	75.00	10.9	Upper Marker
57	13,107	0.00	0.0	

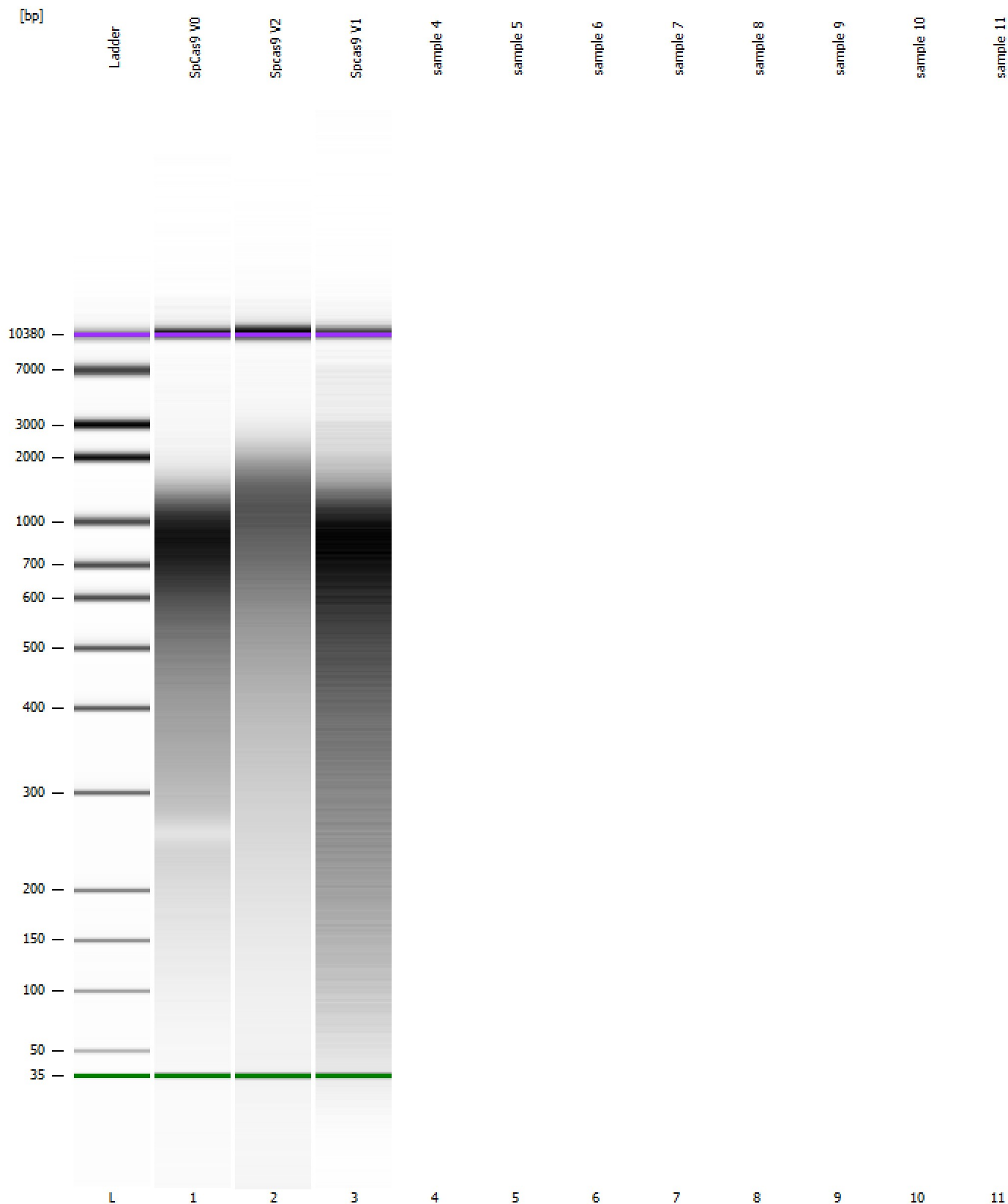
**Region table for sample 3 : Spcas9 V1**

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/µl]	Molarity [pmol/l]	Color
200	1,000	4,580.0	70	510	40.5	3,642.74	13,970.4	

Assay Class: High Sensitivity DNA Assay  
Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-03-12\_001.xad

Created: 3/12/2020 9:27:21 AM  
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**Gel Image**



Assay Class: High Sensitivity DNA Assay  
Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-03-12\_001.xad

Created: 3/12/2020 9:27:21 AM  
Modified: 3/12/2020 9:45:54 AM

**Invalid Samples**

Sample 4 has not been run, no results available.

Sample 5 has not been run, no results available.

Sample 6 has not been run, no results available.

Sample 7 has not been run, no results available.

Sample 8 has not been run, no results available.

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: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-03-12\_001.xad

Created: 3/12/2020 9:27:21 AM  
 Modified: 3/12/2020 9:45:54 AM

**Run Logbook**

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 4)		Instrument	Run		3/12/2020 11:45:51 AM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Run started on port 1 (File: Z:\XADs\2020-03-12\Bioanalyze r1_High Sensitivity DNA Assay_2020-03-12_001.xad)		Instrument	Run		3/12/2020 11:27:26 AM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Product Number : G2938C		Instrument	Run		3/12/2020 11:27:26 AM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Name :		Instrument	Run		3/12/2020 11:27:26 AM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Vendor : Agilent Technologies		Instrument	Run		3/12/2020 11:27:26 AM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Serial# : DE34903152		Instrument	Run		3/12/2020 11:27:26 AM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Firmware : C.01.069		Instrument	Run		3/12/2020 11:27:26 AM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Cartridge : Electrode		Instrument	Run		3/12/2020 11:27:26 AM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB