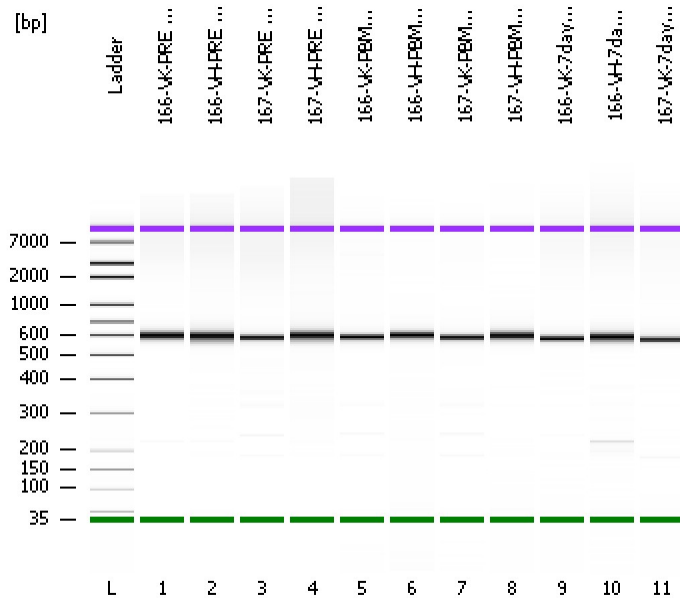


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-10\2014-09-10_006.xad

Created: 9/10/2014 3:45:07 PM
Modified: 9/10/2014 5:18:41 PM

Electrophoresis File Run Summary



Instrument Information:

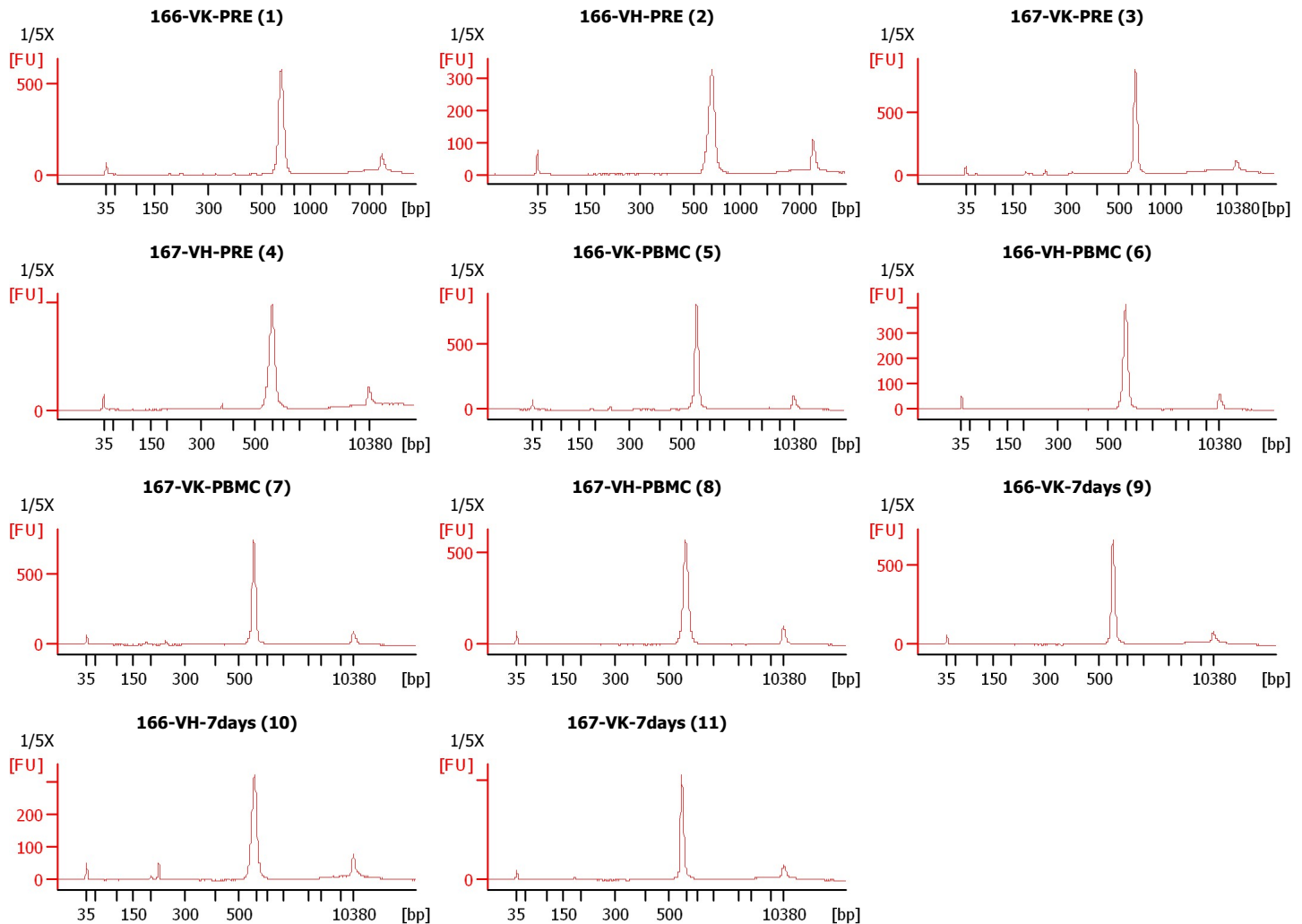
Instrument Name: DE13701086 Firmware: C.01.069
Serial#: DE13701086 Type: G2938B

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\2014-09-10\2014-09-10_006.xad

Created: 9/10/2014 3:45:07 PM
Modified: 9/10/2014 5:18:41 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
166-VK-PRE (1)	1/5X	<input type="checkbox"/>	✓			
166-VH-PRE (2)	1/5X	<input type="checkbox"/>	✓			
167-VK-PRE (3)	1/5X	<input type="checkbox"/>	✓			
167-VH-PRE (4)	1/5X	<input type="checkbox"/>	✓			
166-VK-PBMC (5)	1/5X	<input type="checkbox"/>	✓			
166-VH-PBMC (6)	1/5X	<input type="checkbox"/>	✓			
167-VK-PBMC (7)	1/5X	<input type="checkbox"/>	✓			
167-VH-PBMC (8)	1/5X	<input type="checkbox"/>	✓			
166-VK-7days (9)	1/5X	<input type="checkbox"/>	✓			
166-VH-7days (10)	1/5X	<input type="checkbox"/>	✓			
167-VK-7days (11)	1/5X	<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\2014-09-10\2014-09-10_006.xad

Created: 9/10/2014 3:45:07 PM
 Modified: 9/10/2014 5:18:41 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

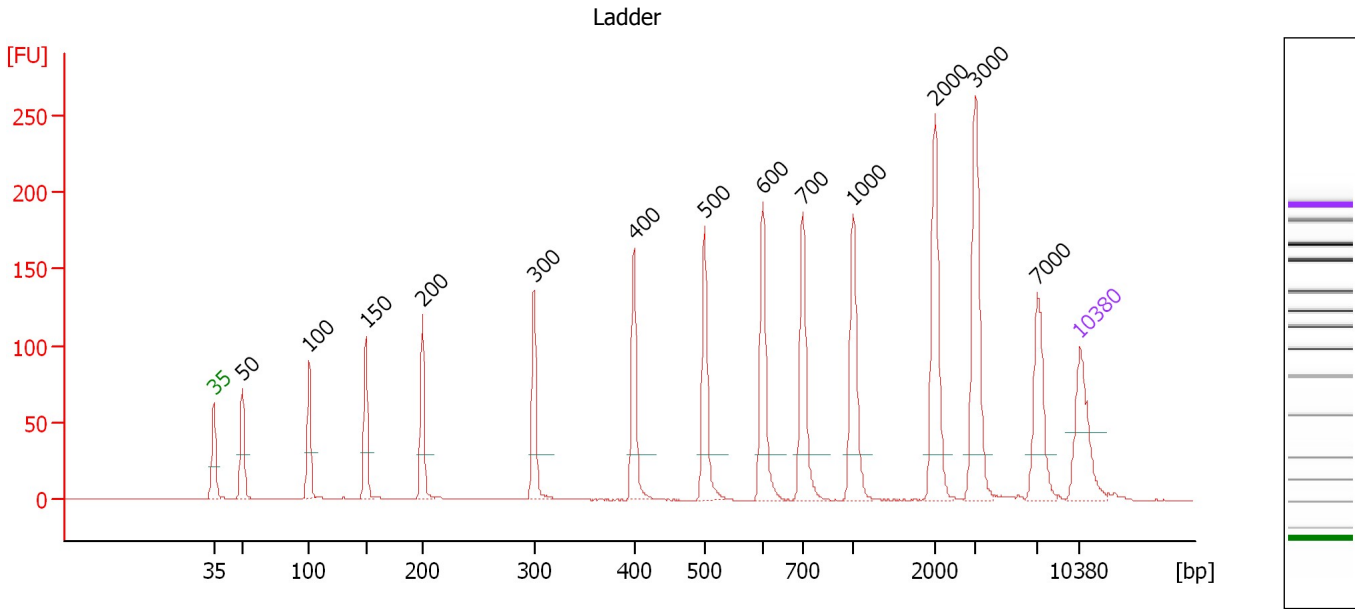
Ladder

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\2014-09-10\2014-09-10_006.xad

Created: 9/10/2014 3:45:07 PM
 Modified: 9/10/2014 5:18:41 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.1

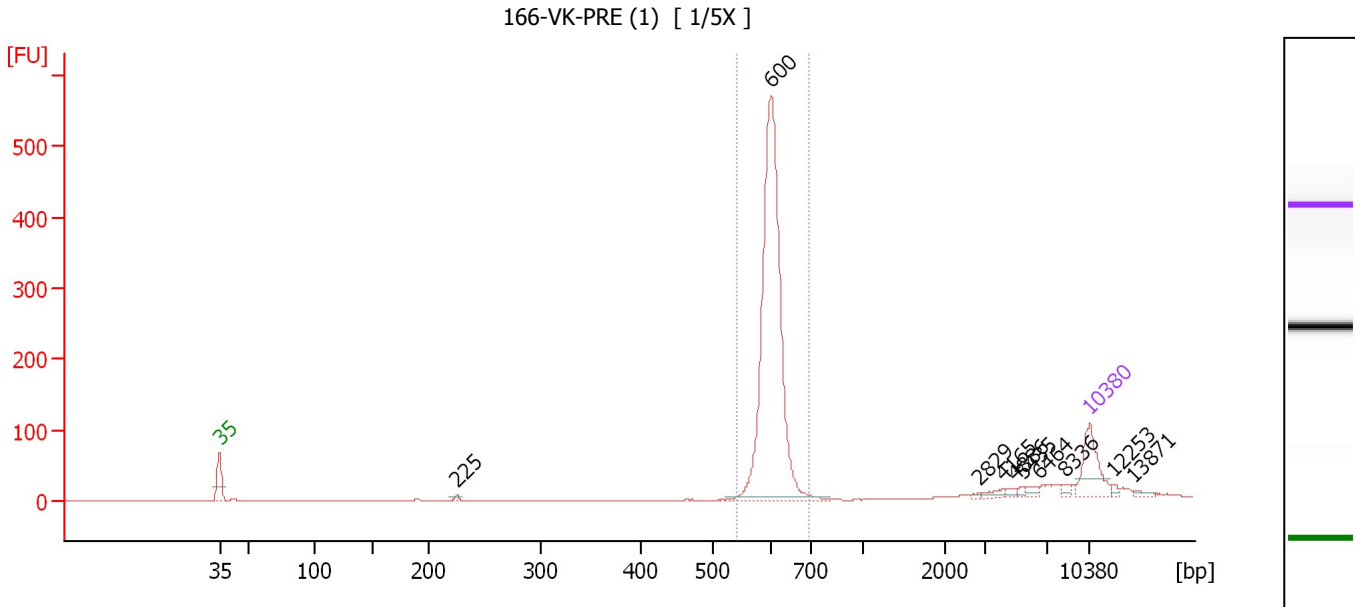
Peak table for Ladder

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\2014-09-10\2014-09-10_006.xad

Created: 9/10/2014 3:45:07 PM
 Modified: 9/10/2014 5:18:41 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : 166-VK-PRE (1)

Number of peaks found: 10 Corr. Area 1: 1,108.7
 Noise: 0.1

Peak table for sample 1 : 166-VK-PRE (1)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	225	6.24	42.0	
3	600	834.19	2,106.8	
4	2,829	3.11	1.7	
5	4,165	10.42	3.8	
6	4,886	7.08	2.2	
7	5,435	4.67	1.3	
8	6,464	10.57	2.5	
9	8,336	7.64	1.4	
10	10,380	75.00	10.9	Upper Marker
11	12,253	0.00	0.0	
12	13,871	0.00	0.0	

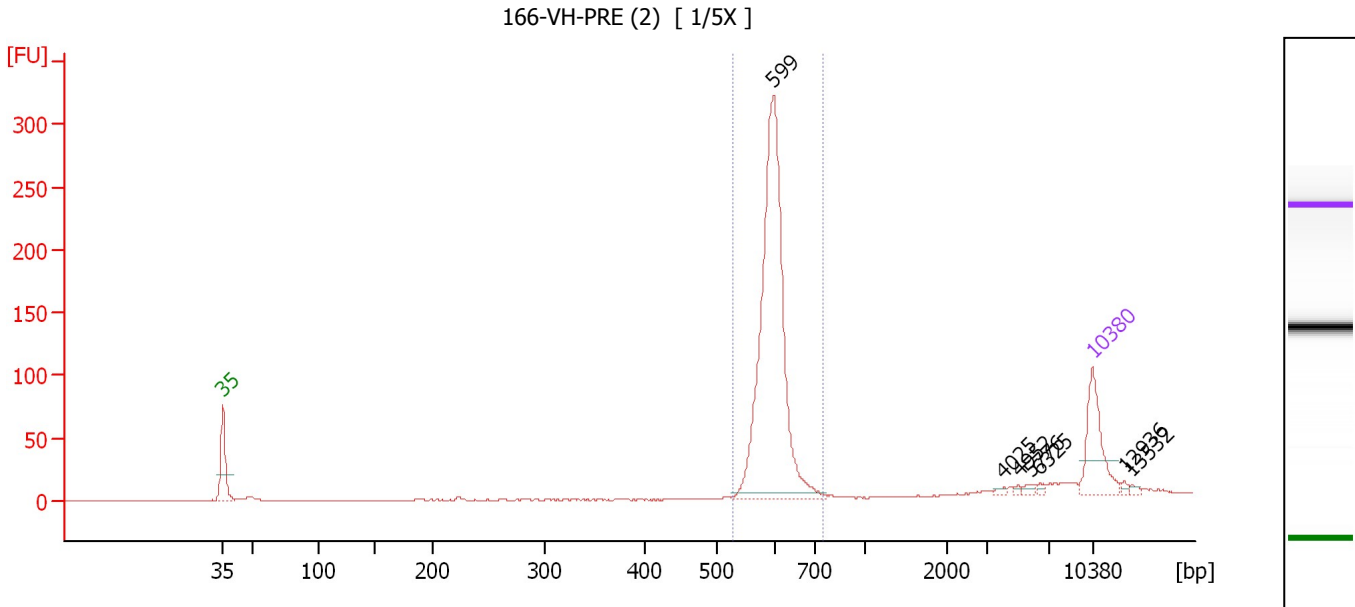
Region table for sample 1 : 166-VK-PRE (1)

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
540	694	1,108.7	88	603	3.2	819.83	2,062.4	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-10\2014-09-10_006.xad

Created: 9/10/2014 3:45:07 PM
 Modified: 9/10/2014 5:18:41 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : 166-VH-PRE (2)

Number of peaks found: 7 Corr. Area 1: 743.1
 Noise: 0.3

Peak table for sample 2 : 166-VH-PRE (2)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	599	601.88	1,523.2	
3	4,025	3.55	1.3	
4	4,952	3.26	1.0	
5	5,776	5.46	1.4	
6	6,325	3.74	0.9	
7	10,380	75.00	10.9	Upper Marker
8	12,936	0.00	0.0	
9	13,532	0.00	0.0	

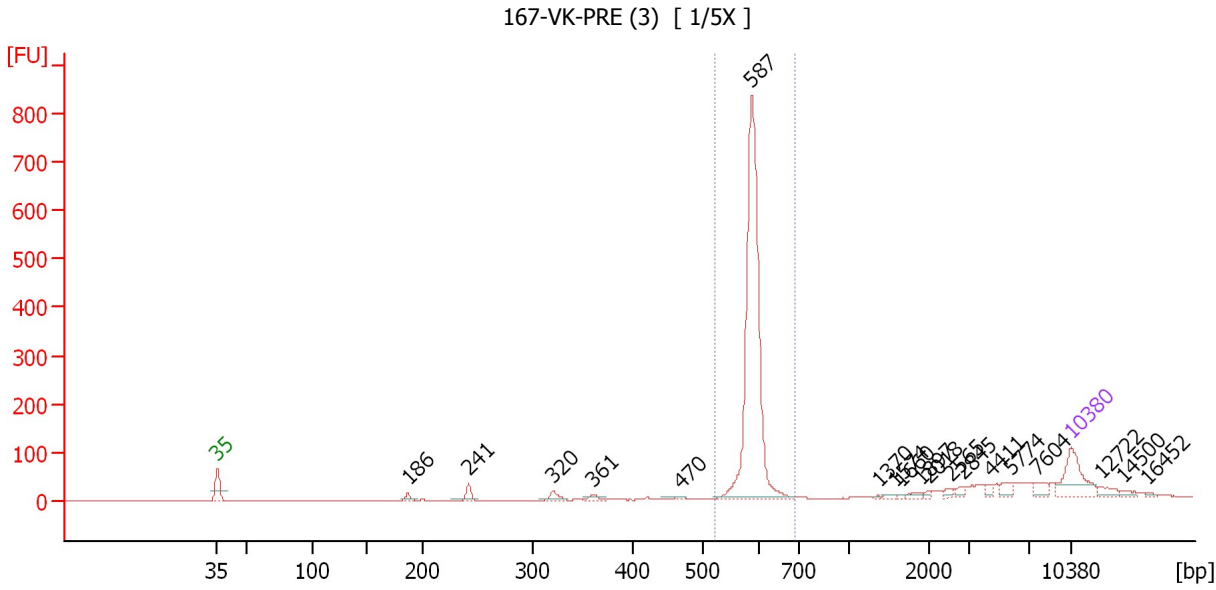
Region table for sample 2 : 166-VH-PRE (2)

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
528	750	743.1	90	599	4.1	595.02	1,507.0	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-10\2014-09-10_006.xad

Created: 9/10/2014 3:45:07 PM
 Modified: 9/10/2014 5:18:41 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : 167-VK-PRE (3)

Number of peaks found: 19 Corr. Area 1: 1,153.7
 Noise: 0.5

Peak table for sample 3 : 167-VK-PRE (3)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	186	13.01	105.9	
3	241	23.15	145.4	
4	320	17.78	84.3	
5	361	11.30	47.5	
6	470	5.72	18.4	
7	587	704.91	1,819.7	
8	1,370	1.95	2.2	
9	1,574	4.21	4.1	
10	1,660	2.82	2.6	
11	1,897	7.29	5.8	
12	2,018	3.91	2.9	
13	2,565	7.39	4.4	
14	2,845	9.23	4.9	
15	4,411	8.42	2.9	
16	5,774	16.28	4.3	
17	7,604	18.59	3.7	
18	10,380	75.00	10.9	Upper Marker
19	12,722	0.00	0.0	
20	14,500	0.00	0.0	
21	16,452	0.00	0.0	

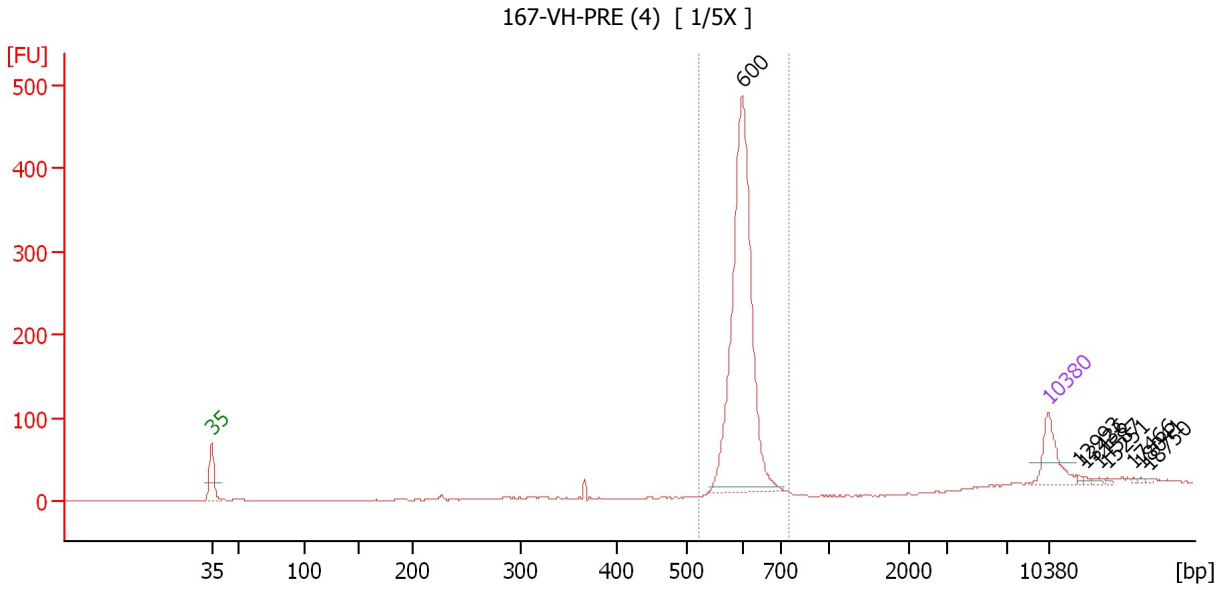
Region table for sample 3 : 167-VK-PRE (3)

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
524	691	1,153.7	74	589	2.6	696.68	1,791.6	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-10\2014-09-10_006.xad

Created: 9/10/2014 3:45:07 PM
 Modified: 9/10/2014 5:18:41 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : 167-VH-PRE (4)

Number of peaks found: 8 Corr. Area 1: 1,011.7
 Noise: 0.4

Peak table for sample 4 : 167-VH-PRE (4)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	600	899.24	2,271.2	
3	10,380	75.00	10.9	Upper Marker
4	12,993	0.00	0.0	
5	13,436	0.00	0.0	
6	14,587	0.00	0.0	
7	15,251	0.00	0.0	
8	17,466	0.00	0.0	
9	18,041	0.00	0.0	
10	18,750	0.00	0.0	

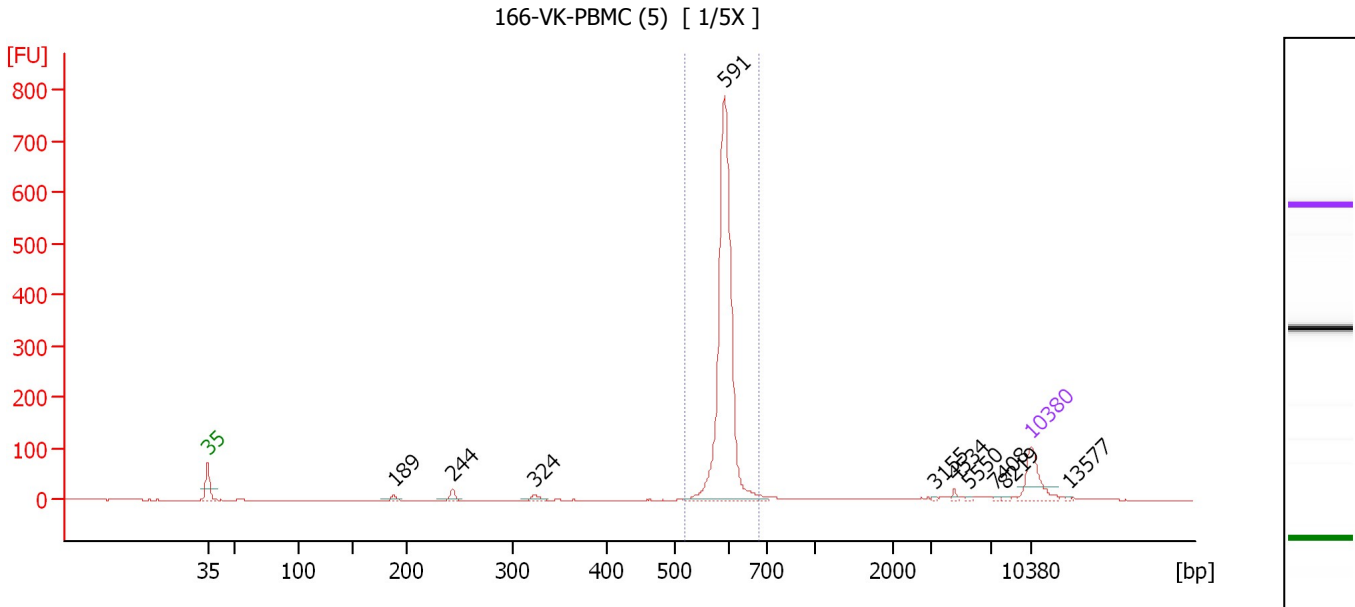
Region table for sample 4 : 167-VH-PRE (4)

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
522	746	1,011.7	96	602	3.6	892.38	2,247.0	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-10\2014-09-10_006.xad

Created: 9/10/2014 3:45:07 PM
 Modified: 9/10/2014 5:18:41 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : 166-VK-PBMC (5)

Number of peaks found: 10 Corr. Area 1: 1,155.6
 Noise: 0.6

Peak table for sample 5 : 166-VK-PBMC (5)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	189	13.25	106.3	
3	244	21.15	131.4	
4	324	15.47	72.4	
5	591	913.84	2,344.0	
6	3,155	1.95	0.9	
7	4,534	5.32	1.8	
8	5,550	2.67	0.7	
9	7,408	2.87	0.6	
10	8,219	2.90	0.5	
11	10,380	75.00	10.9	Upper Marker
12	13,577	0.00	0.0	

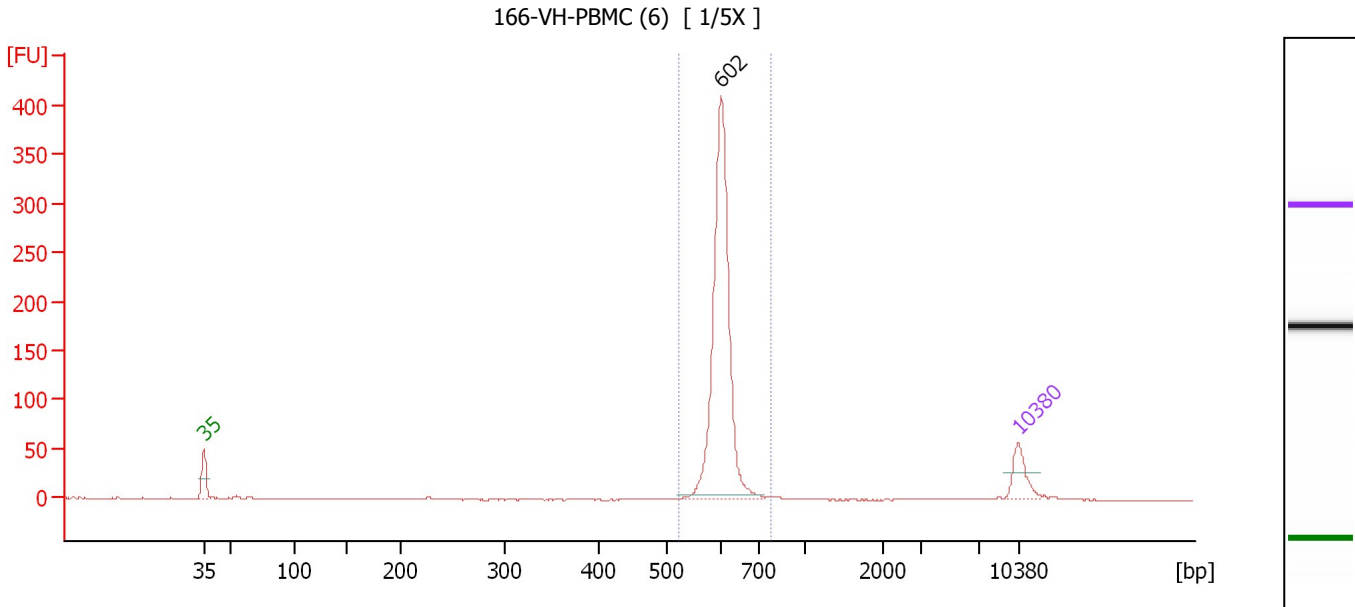
Region table for sample 5 : 166-VK-PBMC (5)

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
519	679	1,155.6	85	593	2.8	908.40	2,324.1	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-10\2014-09-10_006.xad

Created: 9/10/2014 3:45:07 PM
 Modified: 9/10/2014 5:18:41 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : 166-VH-PBMC (6)

Number of peaks found: 1 Corr. Area 1: 737.4
 Noise: 0.4

Peak table for sample 6 : 166-VH-PBMC (6)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	602	1,079.65	2,716.6	
3	10,380	75.00	10.9	Upper Marker

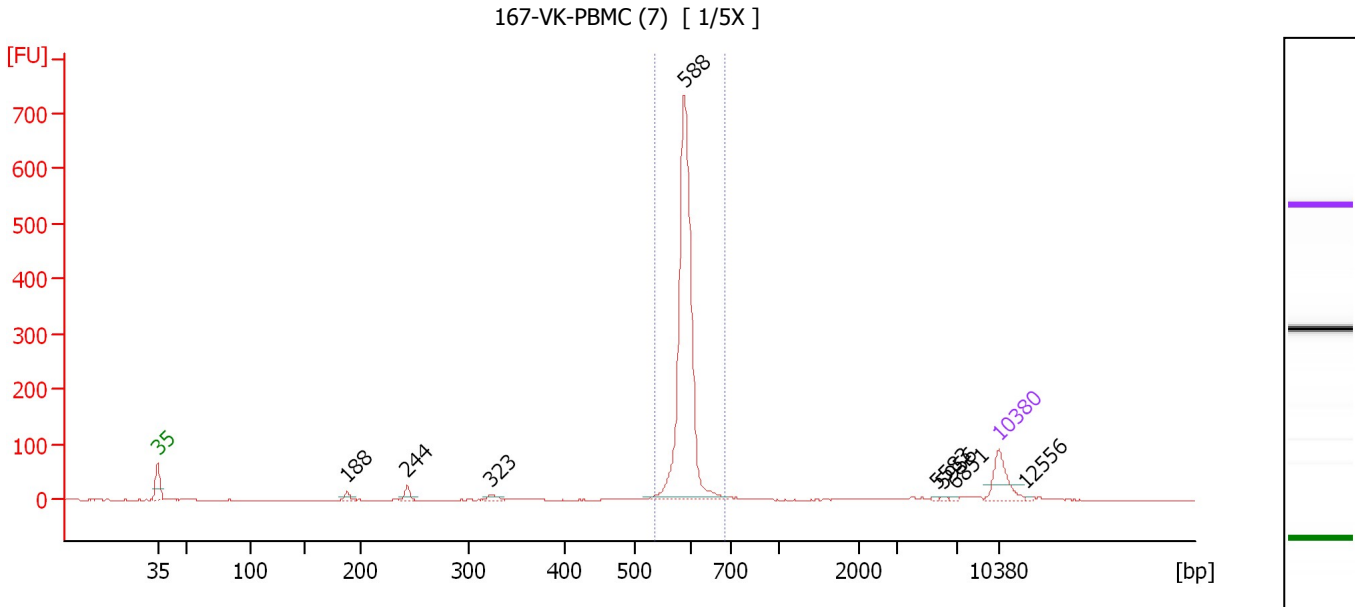
Region table for sample 6 : 166-VH-PBMC (6)

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
525	786	737.4	96	605	3.8	1,086.24	2,722.4	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-10\2014-09-10_006.xad

Created: 9/10/2014 3:45:07 PM
 Modified: 9/10/2014 5:18:41 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : 167-VK-PBMC (7)

Number of peaks found: 8 Corr. Area 1: 1,039.0
 Noise: 0.2

Peak table for sample 7 : 167-VK-PBMC (7)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	188	17.67	142.4	
3	244	23.70	147.4	
4	323	14.02	65.8	
5	588	933.35	2,404.6	
6	5,583	2.41	0.7	
7	5,956	2.44	0.6	
8	6,851	2.91	0.6	
9	10,380	75.00	10.9	Upper Marker
10	12,556	0.00	0.0	

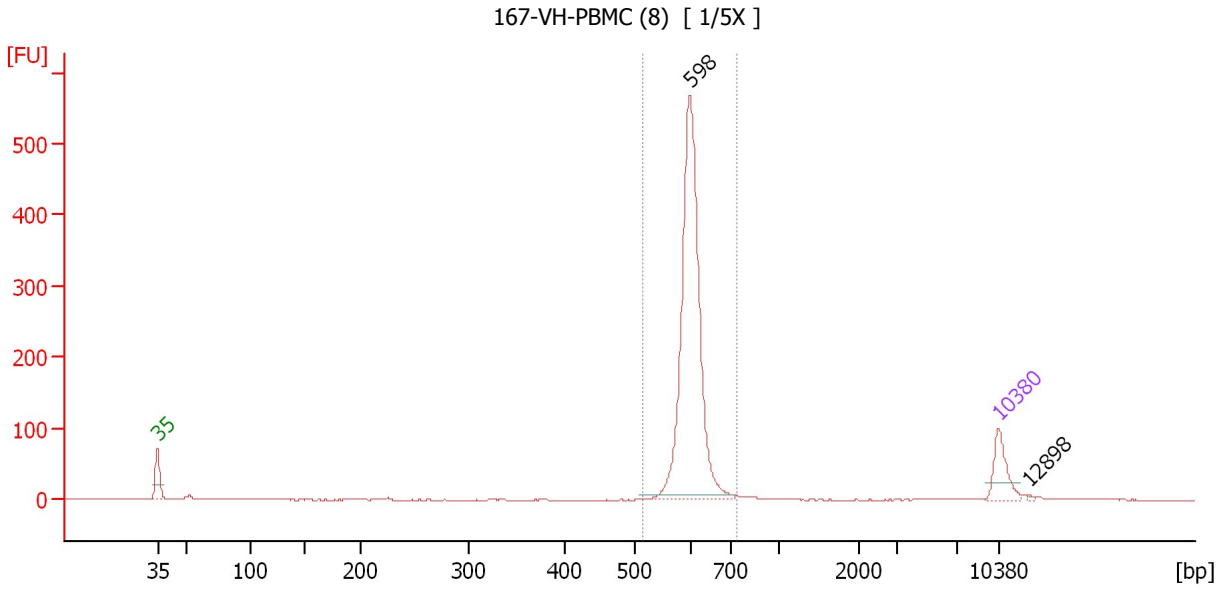
Region table for sample 7 : 167-VK-PBMC (7)

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
535	685	1,039.0	85	591	2.8	938.05	2,407.3	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-10\2014-09-10_006.xad

Created: 9/10/2014 3:45:07 PM
 Modified: 9/10/2014 5:18:41 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : 167-VH-PBMC (8)

Number of peaks found: 2 Corr. Area 1: 1,122.8
 Noise: 0.2

Peak table for sample 8 : 167-VH-PBMC (8)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	598	955.17	2,420.2	
3	10,380	75.00	10.9	Upper Marker
4	12,898	0.00	0.0	

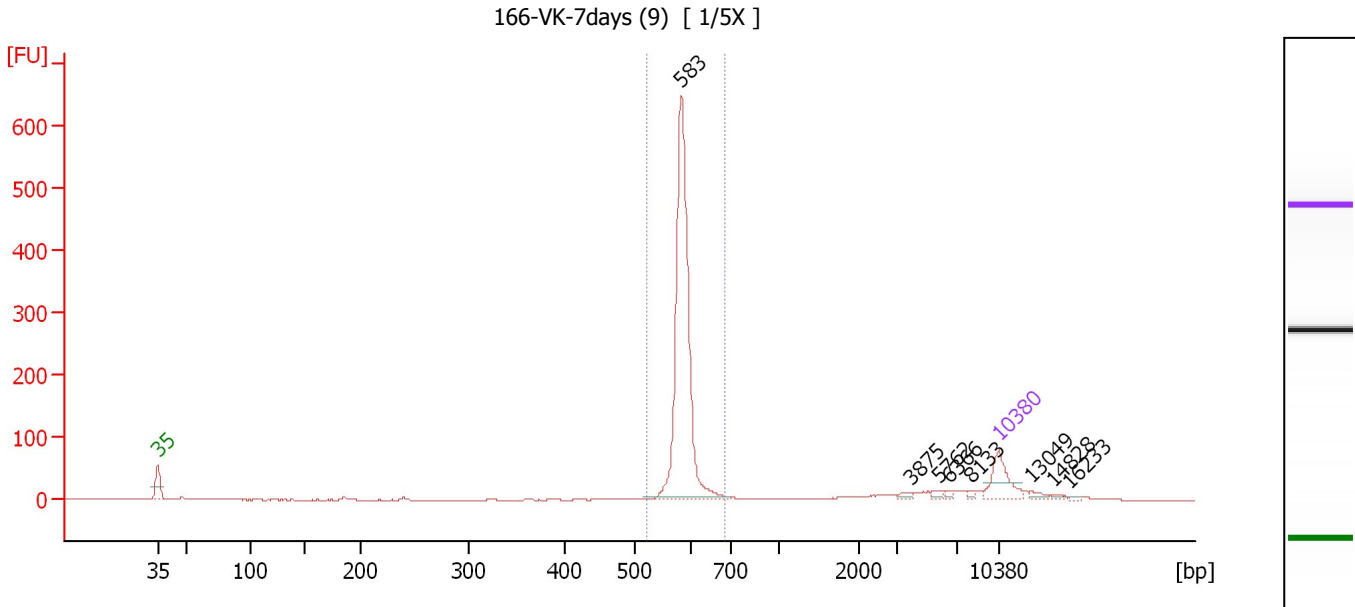
Region table for sample 8 : 167-VH-PBMC (8)

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
516	739	1,122.8	93	603	3.9	972.06	2,445.7	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-10\2014-09-10_006.xad

Created: 9/10/2014 3:45:07 PM
 Modified: 9/10/2014 5:18:41 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : 166-VK-7days (9)

Number of peaks found: 8 Corr. Area 1: 918.3
 Noise: 0.3

Peak table for sample 9 : 166-VK-7days (9)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	583	800.12	2,080.4	
3	3,875	8.87	3.5	
4	5,762	8.86	2.3	
5	6,366	6.14	1.5	
6	8,133	7.23	1.3	
7	10,380	75.00	10.9	Upper Marker
8	13,049	0.00	0.0	
9	14,828	0.00	0.0	
10	16,233	0.00	0.0	

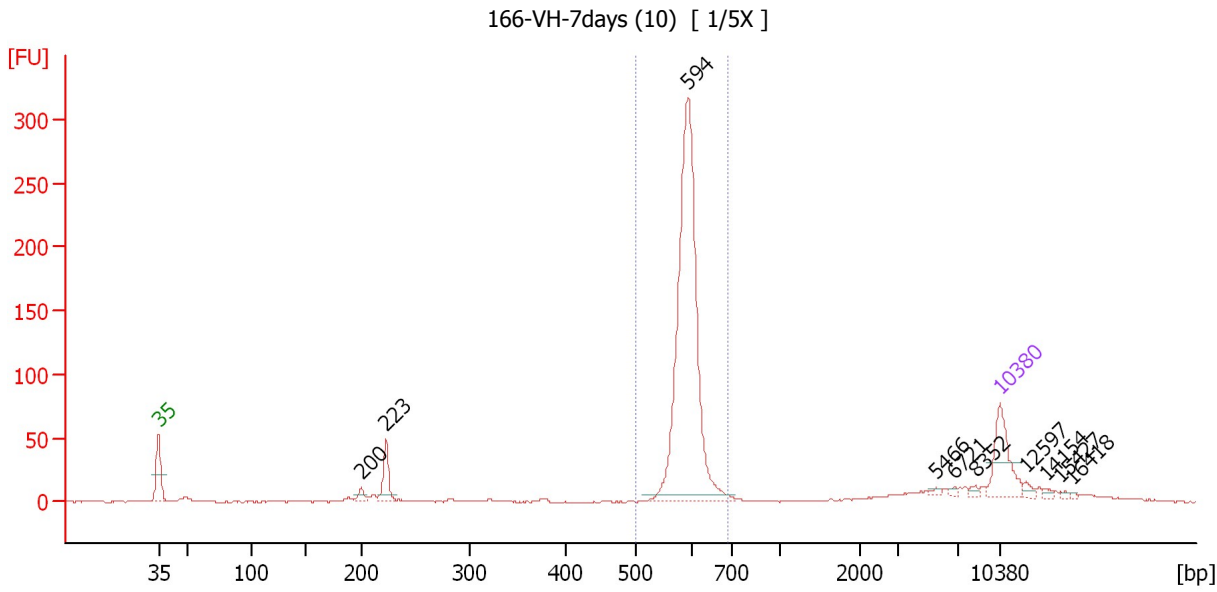
Region table for sample 9 : 166-VK-7days (9)

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
521	686	918.3	79	587	2.9	804.46	2,078.8	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-10\2014-09-10_006.xad

Created: 9/10/2014 3:45:07 PM
 Modified: 9/10/2014 5:18:41 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : 166-VH-7days (10)

Number of peaks found: 10 Corr. Area 1: 653.2
 Noise: 0.3

Peak table for sample 10 : 166-VH-7days (10)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	200	13.87	105.0	
3	223	57.36	390.1	
4	594	694.35	1,772.0	
5	5,466	4.06	1.1	
6	6,721	3.78	0.9	
7	8,352	4.94	0.9	
8	10,380	75.00	10.9	Upper Marker
9	12,597	0.00	0.0	
10	14,154	0.00	0.0	
11	15,427	0.00	0.0	
12	16,418	0.00	0.0	

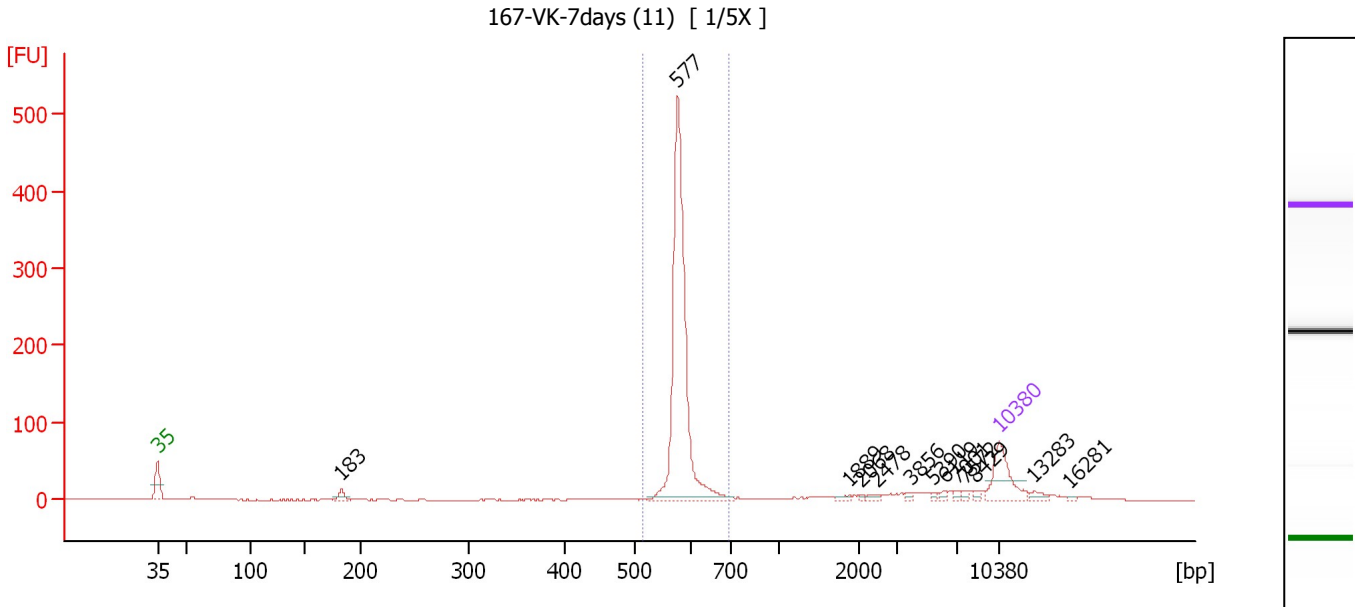
Region table for sample 10 : 166-VH-7days (10)

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
500	690	653.2	71	594	3.7	703.55	1,797.7	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-10\2014-09-10_006.xad

Created: 9/10/2014 3:45:07 PM
 Modified: 9/10/2014 5:18:41 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : 167-VK-7days (11)

Number of peaks found: 13 Corr. Area 1: 680.4
 Noise: 0.3

Peak table for sample 11 : 167-VK-7days (11)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	183	16.28	134.8	
3	577	628.12	1,650.7	
4	1,889	5.62	4.5	
5	2,068	2.77	2.0	
6	2,478	5.77	3.5	
7	3,856	4.68	1.8	
8	5,390	4.66	1.3	
9	6,119	6.36	1.6	
10	7,001	5.67	1.2	
11	7,572	5.69	1.1	
12	8,429	5.50	1.0	
13	10,380	75.00	10.9	Upper Marker
14	13,283	0.00	0.0	
15	16,281	0.00	0.0	

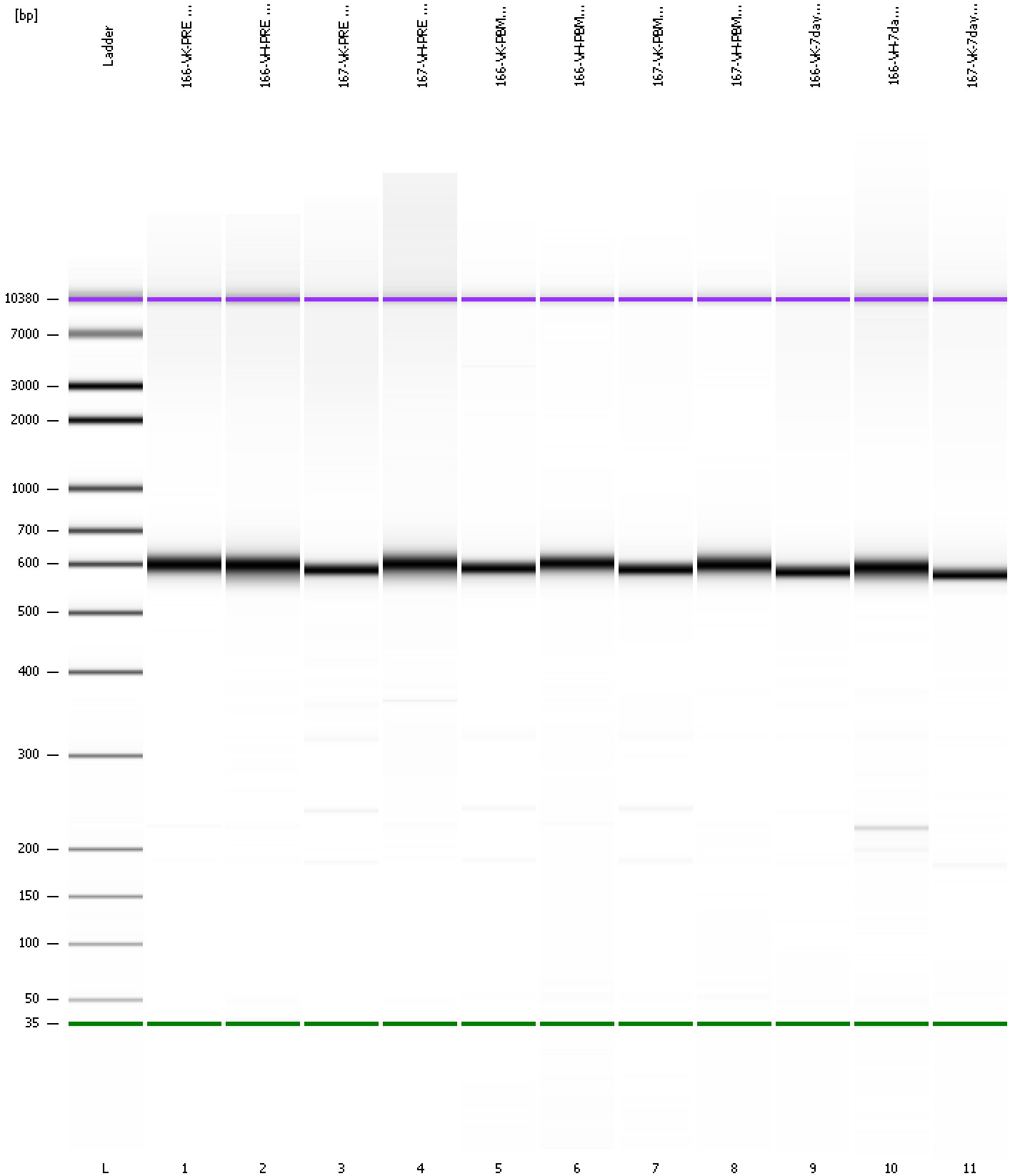
Region table for sample 11 : 167-VK-7days (11)

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
516	696	680.4	78	583	3.3	622.10	1,618.8	Blue

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-10\2014-09-10_006.xad

Created: 9/10/2014 3:45:07 PM
Modified: 9/10/2014 5:18:41 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-10\2014-09-10_006.xad

Created: 9/10/2014 3:45:07 PM
 Modified: 9/10/2014 5:18:41 PM

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		9/10/2014 4:26:25 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2014-09-10\2014-09-10_006.xad)		Instrument	Run		9/10/2014 3:45:12 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		9/10/2014 3:45:12 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		9/10/2014 3:45:12 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		9/10/2014 3:45:12 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		9/10/2014 3:45:12 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		9/10/2014 3:45:12 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		9/10/2014 3:45:12 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1