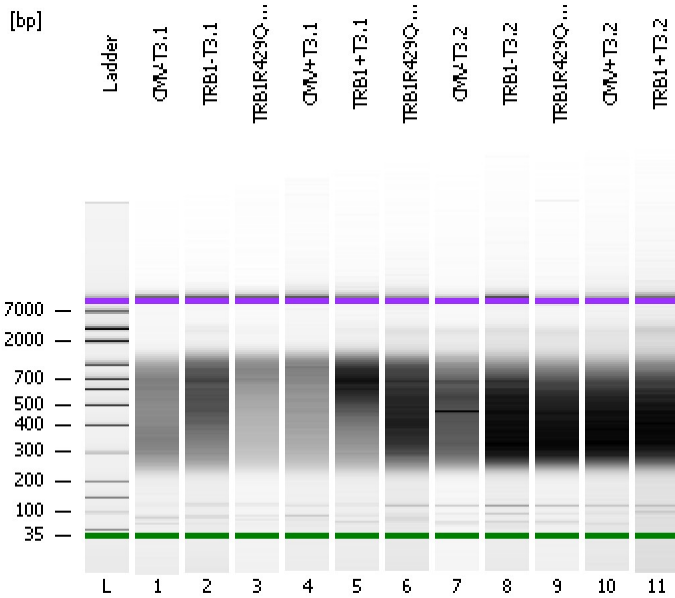


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-05-18\2015-05-18_001.xad

Created: 5/18/2015 11:24:51 AM
Modified: 5/18/2015 12:06:14 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

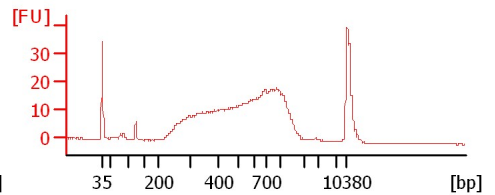
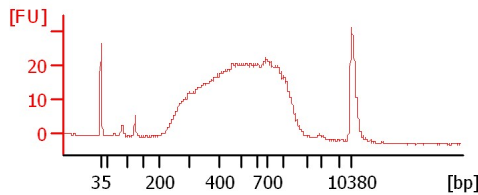
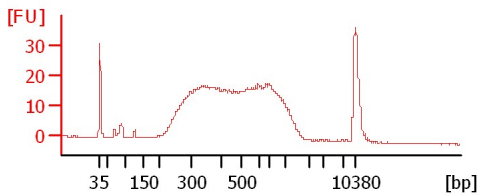
Chip Information:

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

CMV-T3.1

TRB1-T3.1

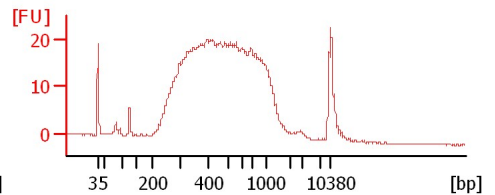
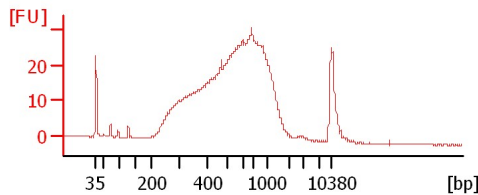
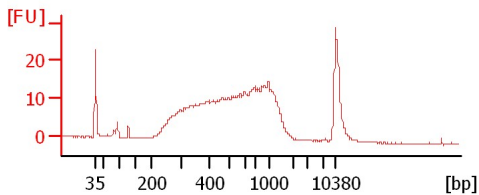
TRB1R429Q-T3.1



CMV+T3.1

TRB1+T3.1

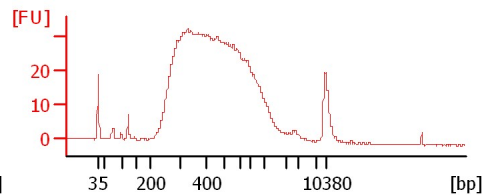
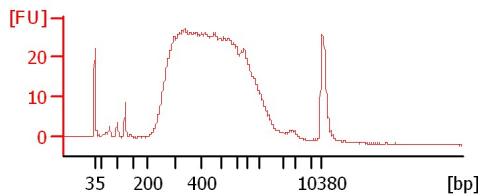
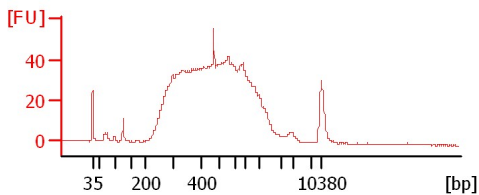
TRB1R429Q-T3.1



CMV-T3.2

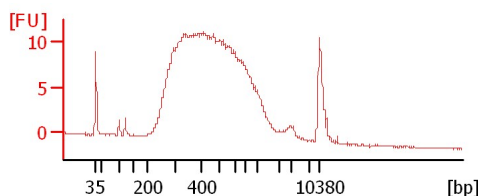
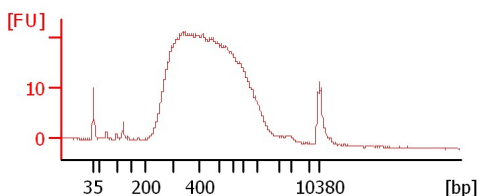
TRB1-T3.2

TRB1R429Q-T3.2



CMV+T3.2

TRB1+T3.2



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-05-18\2015-05-18_001.xad

Created: 5/18/2015 11:24:51 AM
Modified: 5/18/2015 12:06:14 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
CMV-T3.1		<input type="checkbox"/>	✓			
TRB1-T3.1		<input type="checkbox"/>	✓			
TRB1R429Q-T3.1		<input type="checkbox"/>	✓			
CMV+T3.1		<input type="checkbox"/>	✓			
TRB1+T3.1		<input type="checkbox"/>	✓			
TRB1R429Q-T3.1		<input type="checkbox"/>	✓			
CMV-T3.2		<input type="checkbox"/>	✓			
TRB1-T3.2		<input type="checkbox"/>	✓			
TRB1R429Q-T3.2		<input type="checkbox"/>	✓			
CMV+T3.2		<input type="checkbox"/>	✓			
TRB1+T3.2		<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\2015-05-18\2015-05-18_001.xad

Created: 5/18/2015 11:24:51 AM
Modified: 5/18/2015 12:06:14 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

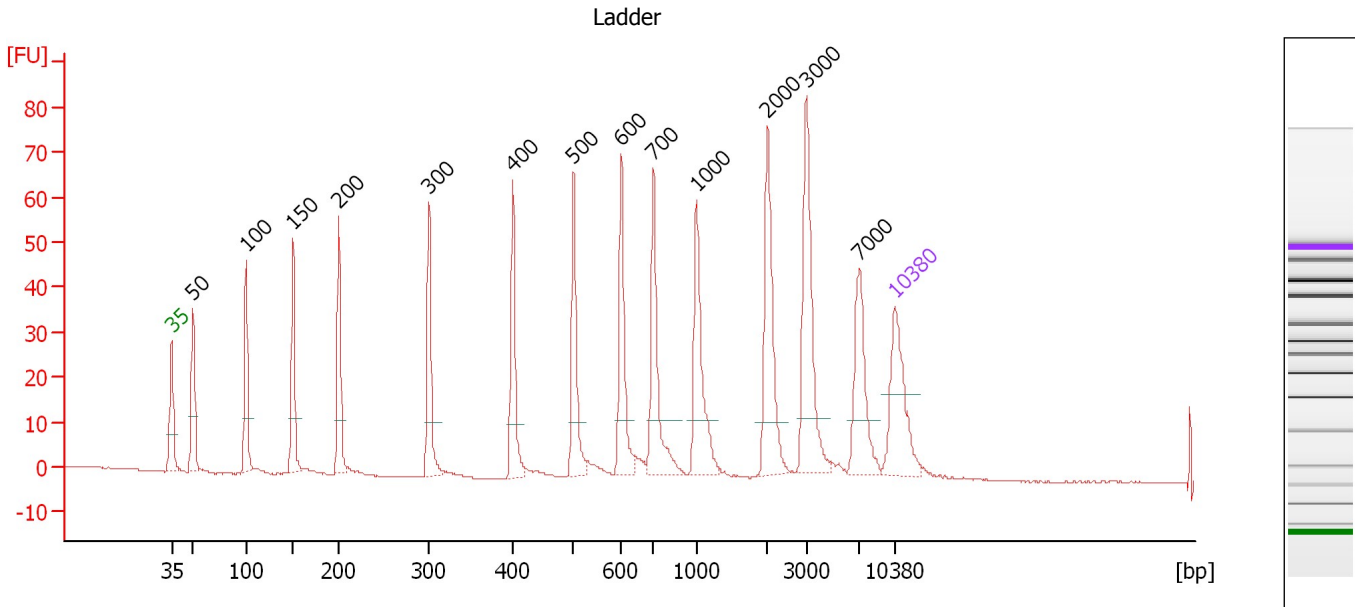
Ladder

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\2015-05-18\2015-05-18_001.xad

Created: 5/18/2015 11:24:51 AM
 Modified: 5/18/2015 12:06:14 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.1

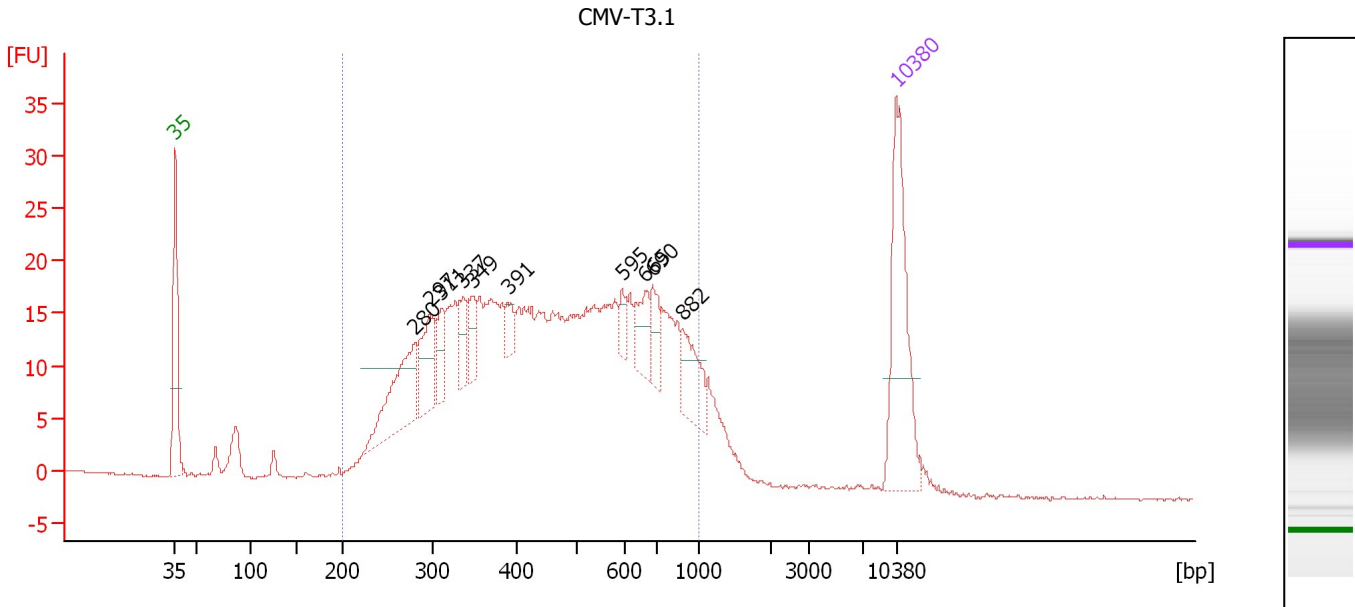
Peak table for Ladder

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	45.07
3	100	150.00	2,272.7	Ladder Peak	50.23
4	150	150.00	1,515.2	Ladder Peak	54.78
5	200	150.00	1,136.4	Ladder Peak	59.22
6	300	150.00	757.6	Ladder Peak	67.95
7	400	150.00	568.2	Ladder Peak	76.06
8	500	150.00	454.5	Ladder Peak	81.95
9	600	150.00	378.8	Ladder Peak	86.60
10	700	150.00	324.7	Ladder Peak	89.70
11	1,000	150.00	227.3	Ladder Peak	93.89
12	2,000	150.00	113.6	Ladder Peak	100.76
13	3,000	150.00	75.8	Ladder Peak	104.53
14	7,000	150.00	32.5	Ladder Peak	109.69
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-05-18\2015-05-18_001.xad

Created: 5/18/2015 11:24:51 AM
 Modified: 5/18/2015 12:06:14 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : CMV-T3.1

Number of peaks found: 10 Corr. Area 1: 628.2
 Noise: 0.1

Peak table for sample 1 : CMV-T3.1

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	280	71.27	385.0		66.25
3	297	40.12	204.6		67.70
4	311	17.96	87.5		68.84
5	337	22.78	102.4		70.96
6	349	15.14	65.7		71.94
7	391	11.90	46.1		75.36
8	595	8.44	21.5		86.39
9	665	22.69	51.7		88.61
10	690	18.33	40.3		89.39
11	882	30.32	52.1		92.24
12	10,380	75.00	10.9	Upper Marker	113.00

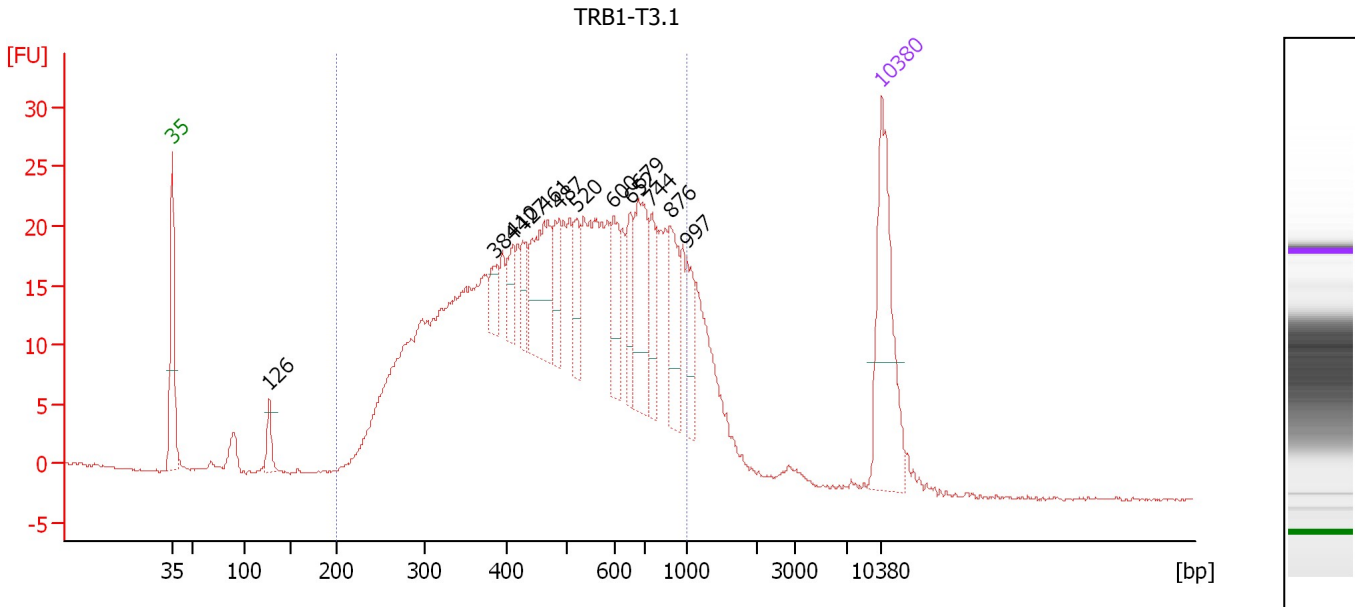
Region table for sample 1 : CMV-T3.1

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
200	487	1,000	628.2	4,652.7	92	37.4	1,239.02	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-05-18\2015-05-18_001.xad

Created: 5/18/2015 11:24:51 AM
 Modified: 5/18/2015 12:06:14 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : TRB1-T3.1

Number of peaks found: 13 Corr. Area 1: 688.9
 Noise: 0.1

Peak table for sample 2 : TRB1-T3.1

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	126	17.66	212.7		52.58
3	384	15.85	62.5		74.79
4	410	17.61	65.1		76.63
5	427	16.51	58.6		77.63
6	461	62.00	203.6		79.68
7	487	24.78	77.0		81.21
8	520	22.31	65.0		82.89
9	600	29.24	73.9		86.58
10	652	23.78	55.3		88.21
11	679	60.26	134.4		89.05
12	744	26.70	54.4		90.32
13	876	39.46	68.2		92.16
14	997	20.96	31.9		93.84
15	10,380	75.00	10.9	Upper Marker	113.00

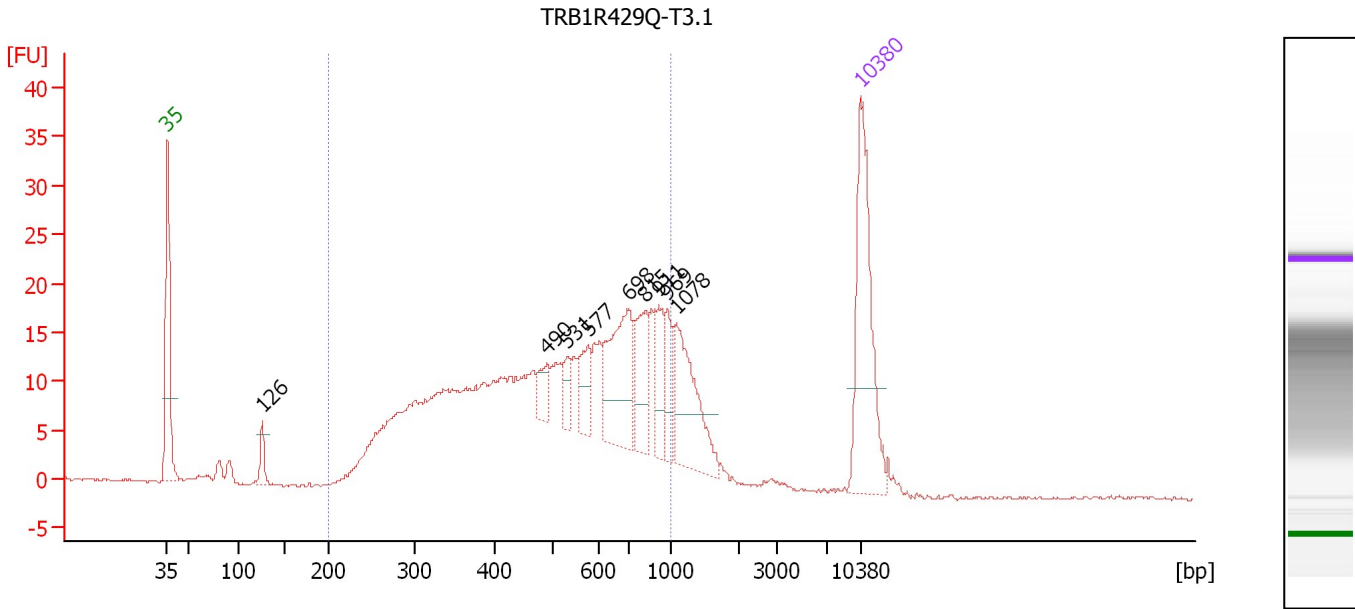
Region table for sample 2 : TRB1-T3.1

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
200	515	1,000	688.9	5,217.0	90	35.8	1,480.26	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-05-18\2015-05-18_001.xad

Created: 5/18/2015 11:24:51 AM
 Modified: 5/18/2015 12:06:14 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : TRB1R429Q-T3.1

Number of peaks found: 9 Corr. Area 1: 451.1
 Noise: 0.2

Peak table for sample 3 : TRB1R429Q-T3.1

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	126	13.85	166.7		52.58
3	490	14.10	43.6		81.34
4	531	11.62	33.2		83.38
5	577	21.49	56.4		85.54
6	698	67.90	147.4		89.63
7	815	36.22	67.4		91.30
8	911	22.55	37.5		92.65
9	969	17.62	27.6		93.45
10	1,078	56.47	79.3		94.42
11	10,380	75.00	10.9	Upper Marker	113.00

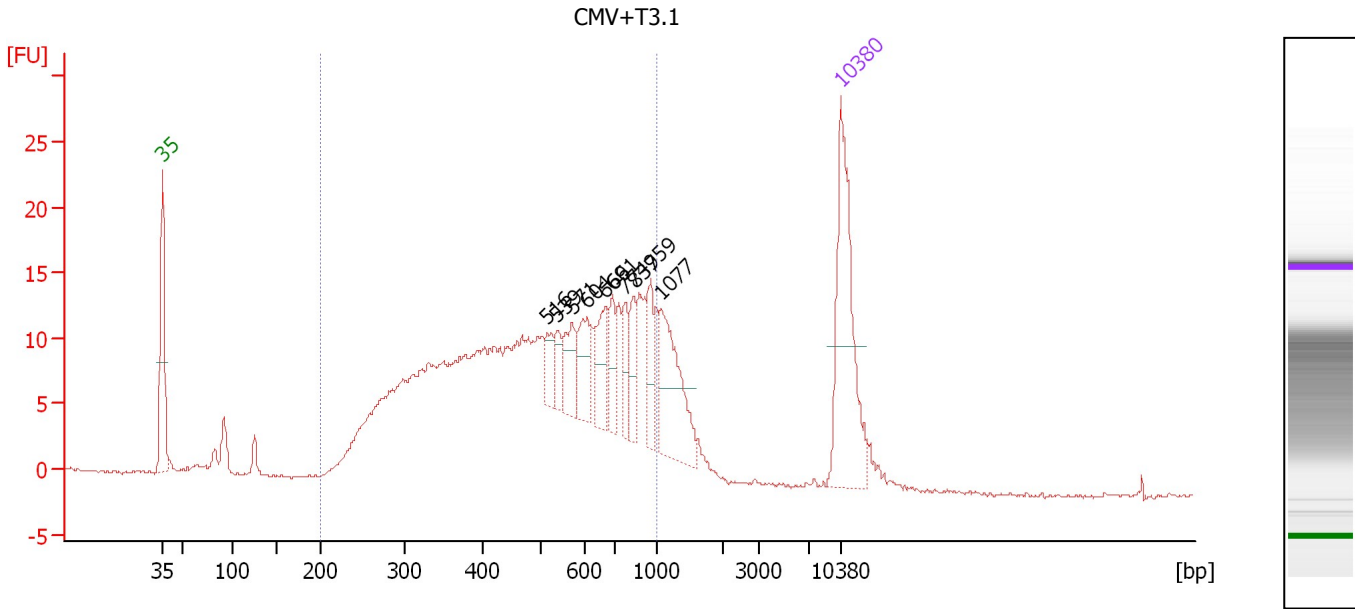
Region table for sample 3 : TRB1R429Q-T3.1

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
200	538	1,000	451.1	2,748.3	85	36.9	797.42	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-05-18\2015-05-18_001.xad

Created: 5/18/2015 11:24:51 AM
 Modified: 5/18/2015 12:06:14 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : CMV+T3.1

Number of peaks found: 10 Corr. Area 1: 382.9
 Noise: 0.1

Peak table for sample 4 : CMV+T3.1

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	516	13.30	39.0		82.70
3	539	10.62	29.9		83.75
4	571	22.19	58.9		85.23
5	604	22.92	57.5		86.72
6	666	25.61	58.3		88.64
7	691	17.85	39.2		89.41
8	774	16.10	31.5		90.73
9	837	17.76	32.2		91.61
10	959	21.00	33.2		93.31
11	1,077	53.35	75.1		94.41
12	10,380	75.00	10.9	Upper Marker	113.00

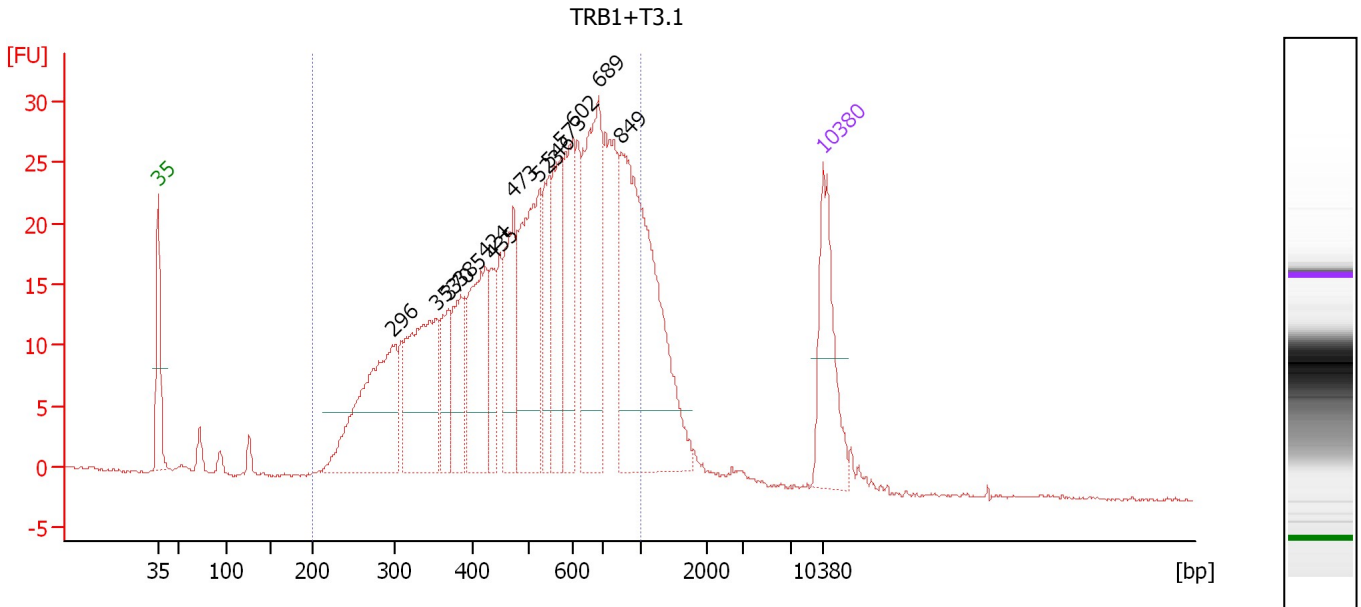
Region table for sample 4 : CMV+T3.1

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
200	525	1,000	382.9	3,070.4	85	37.1	873.93	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-05-18\2015-05-18_001.xad

Created: 5/18/2015 11:24:51 AM
 Modified: 5/18/2015 12:06:14 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : TRB1+T3.1

Number of peaks found: 13 Corr. Area 1: 686.7
 Noise: 0.1

Peak table for sample 5 : TRB1+T3.1

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	296	193.54	989.1		67.64
3	353	153.27	658.0		72.25
4	370	53.28	218.4		73.59
5	385	65.72	258.3		74.88
6	424	109.95	393.0		77.47
7	435	38.46	133.9		78.14
8	473	87.02	278.5		80.39
9	523	156.25	452.6		83.02
10	546	59.94	166.3		84.09
11	573	87.62	231.9		85.33
12	602	88.85	223.5		86.67
13	689	165.47	363.8		89.37
14	849	283.43	505.7		91.78
15	10,380	75.00	10.9	Upper Marker	113.00

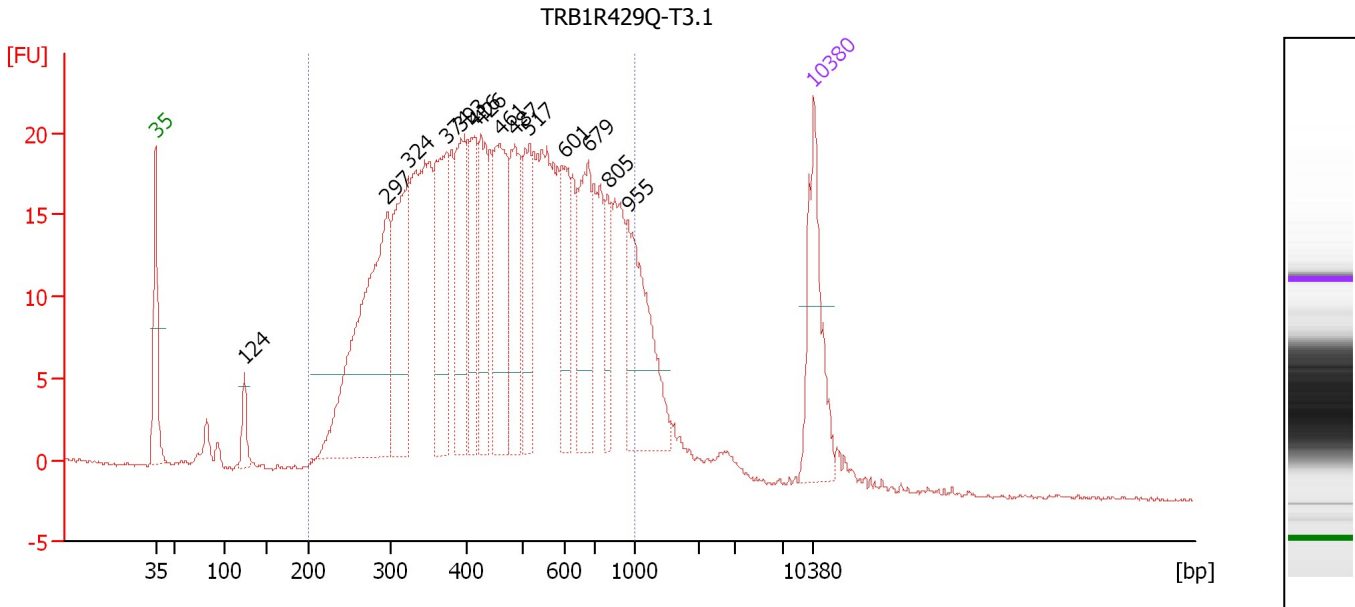
Region table for sample 5 : TRB1+T3.1

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
200	545	1,000	686.7	5,788.5	88	34.4	1,736.24	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-05-18\2015-05-18_001.xad

Created: 5/18/2015 11:24:51 AM
 Modified: 5/18/2015 12:06:14 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : TRB1R429Q-T3.1

Number of peaks found: 14 Corr. Area 1: 673.9
 Noise: 0.1

Peak table for sample 6 : TRB1R429Q-T3.1

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	124	24.86	303.7		52.42
3	297	294.41	1,502.7		67.68
4	324	145.83	682.2		69.89
5	374	118.92	481.5		73.97
6	393	102.17	393.8		75.50
7	416	74.41	271.3		76.98
8	426	81.08	288.3		77.60
9	461	114.28	375.7		79.65
10	487	91.01	283.2		81.18
11	517	80.34	235.2		82.76
12	601	60.49	152.6		86.62
13	679	86.97	194.0		89.06
14	805	34.88	65.7		91.16
15	955	113.01	179.3		93.26
16	10,380	75.00	10.9	Upper Marker	113.00

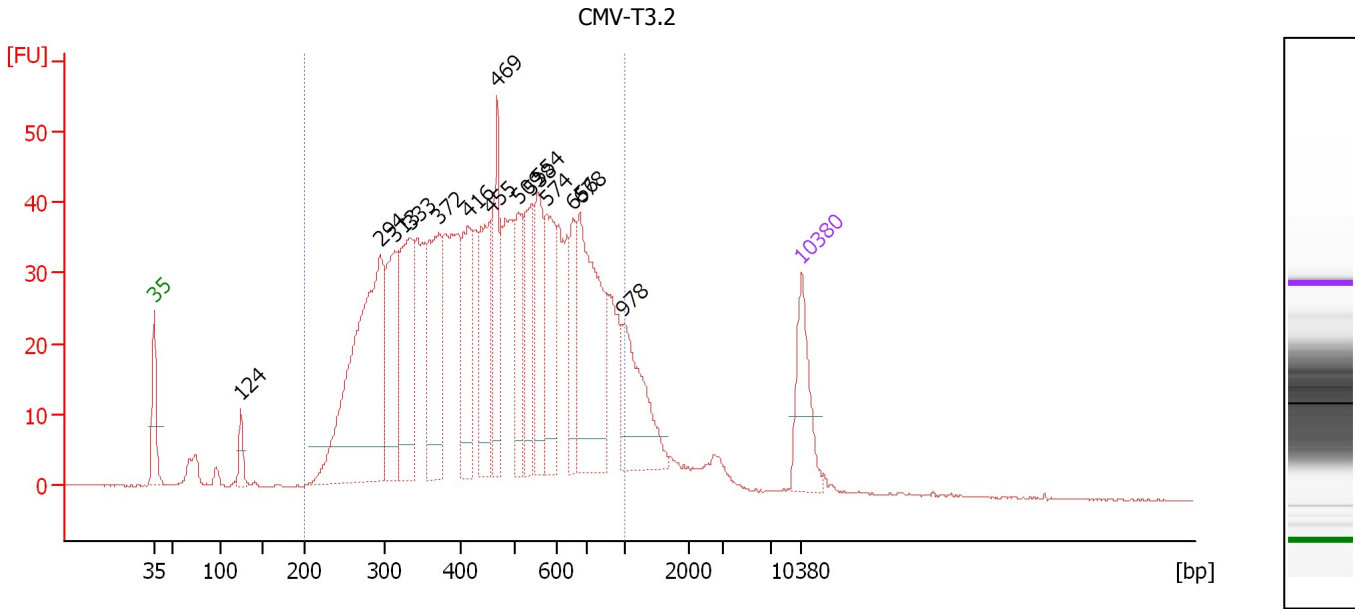
Region table for sample 6 : TRB1R429Q-T3.1

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
200	490	1,000	673.9	8,051.9	91	36.5	2,184.96	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-05-18\2015-05-18_001.xad

Created: 5/18/2015 11:24:51 AM
 Modified: 5/18/2015 12:06:14 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : CMV-T3.2

Number of peaks found: 15 Corr. Area 1: 1,295.7
 Noise: 0.1

Peak table for sample 7 : CMV-T3.2

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	124	33.86	414.7		52.39
3	294	495.67	2,554.5		67.43
4	313	160.01	775.3		68.98
5	333	203.60	925.5		70.65
6	372	195.68	797.7		73.77
7	416	124.30	453.0		76.99
8	455	140.55	468.1		79.30
9	469	100.97	326.5		80.10
10	509	78.89	235.0		82.35
11	538	107.17	301.6		83.73
12	554	112.67	307.9		84.48
13	574	113.66	299.9		85.40
14	656	66.60	153.8		88.34
15	678	258.24	576.7		89.03
16	978	125.06	193.7		93.58
17	10,380	75.00	10.9	Upper Marker	113.00

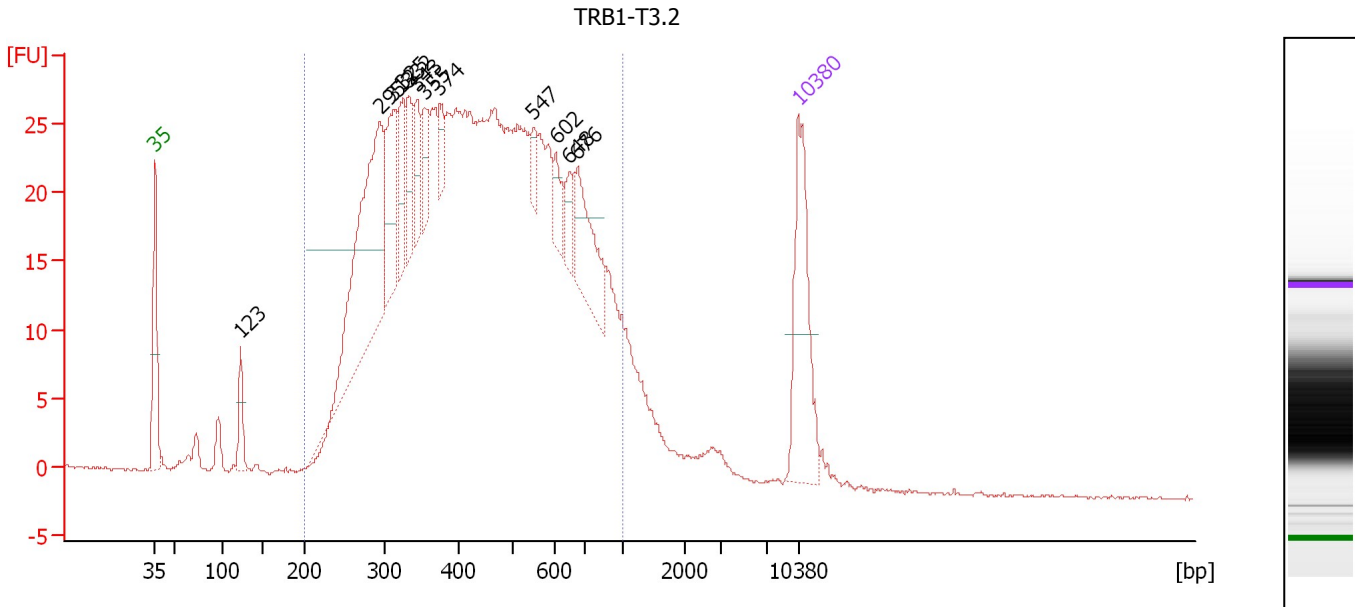
Region table for sample 7 : CMV-T3.2

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
200	484	1,000	1,295.7	12,143.0	91	35.8	3,271.78	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-05-18\2015-05-18_001.xad

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 Modified: 5/18/2015 12:06:14 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : TRB1-T3.2

Number of peaks found: 12 Corr. Area 1: 888.5
 Noise: 0.1

Peak table for sample 8 : TRB1-T3.2

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	123	29.02	356.8		52.34
3	295	206.40	1,061.0		67.49
4	312	63.44	308.5		68.89
5	325	39.03	181.9		69.99
6	332	32.89	150.0		70.57
7	343	27.67	122.2		71.44
8	355	24.77	105.7		72.43
9	374	15.81	64.1		73.94
10	547	11.75	32.5		84.15
11	602	14.51	36.6		86.65
12	648	13.40	31.3		88.10
13	676	56.06	125.6		88.97
14	10,380	75.00	10.9	Upper Marker	113.00

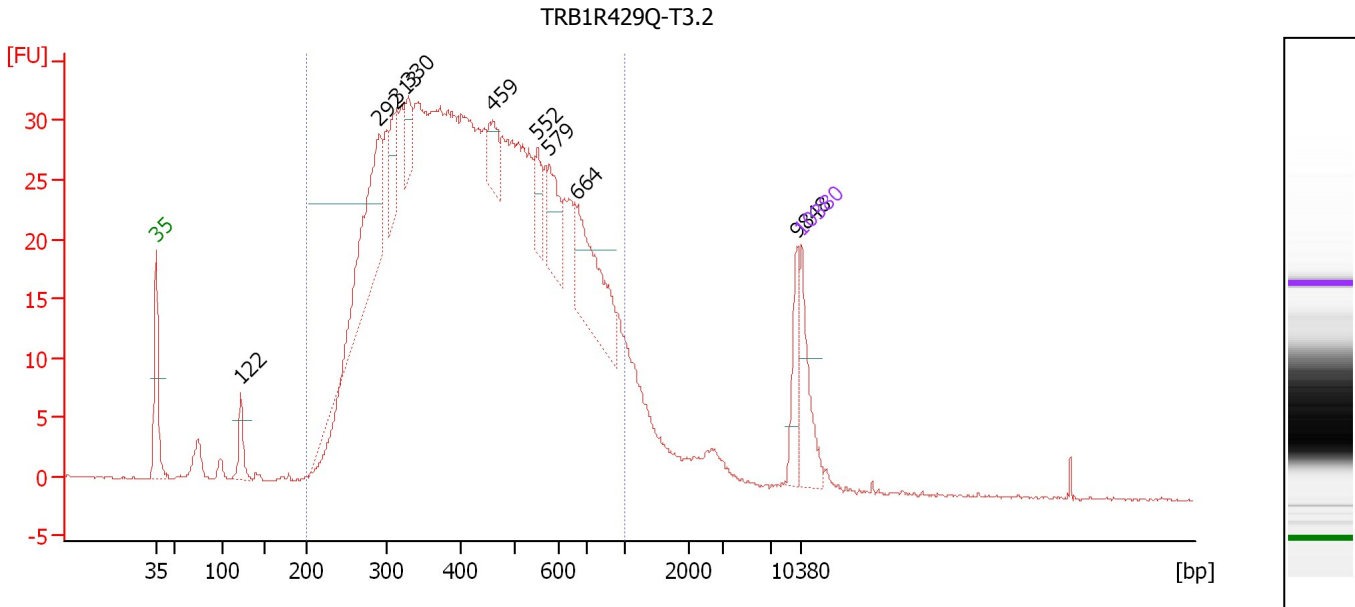
Region table for sample 8 : TRB1-T3.2

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
200	465	1,000	888.5	9,033.0	93	35.7	2,359.68	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-05-18\2015-05-18_001.xad

Created: 5/18/2015 11:24:51 AM
 Modified: 5/18/2015 12:06:14 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : TRB1R429Q-T3.2

Number of peaks found: 9 Corr. Area 1: 1,011.0
 Noise: 0.1

Peak table for sample 9 : TRB1R429Q-T3.2

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	122	55.57	692.3		52.20
3	292	256.57	1,332.0		67.24
4	313	71.48	345.7		69.03
5	330	40.99	188.4		70.36
6	459	50.76	167.4		79.56
7	552	38.05	104.5		84.36
8	579	74.72	195.4		85.64
9	664	157.89	360.3		88.59
10	9,848	52.97	8.2		112.48
11	10,380	75.00	10.9	Upper Marker	113.00

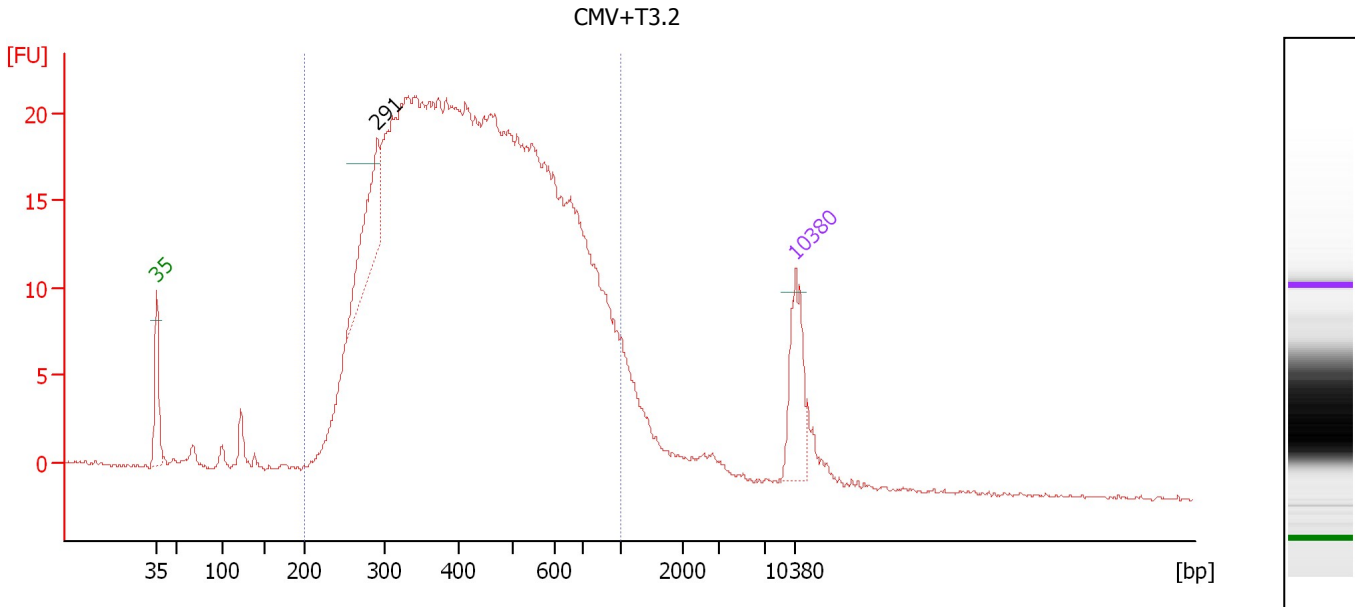
Region table for sample 9 : TRB1R429Q-T3.2

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
200	461	1,000	1,011.0	21,175.2	92	35.6	5,498.68	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-05-18\2015-05-18_001.xad

Created: 5/18/2015 11:24:51 AM
 Modified: 5/18/2015 12:06:14 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : CMV+T3.2

Number of peaks found: 1 Corr. Area 1: 664.9
 Noise: 0.1

Peak table for sample 10 : CMV+T3.2

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	291	135.14	702.9		67.19
3	10,380	75.00	10.9	Upper Marker	113.00

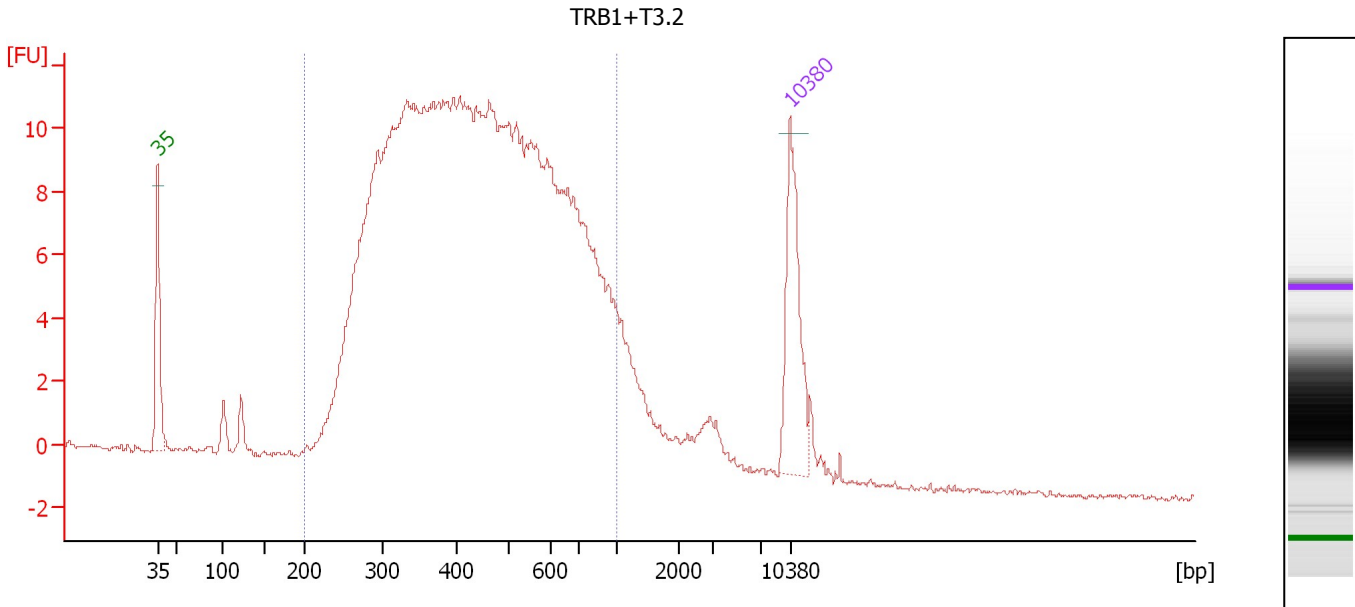
Region table for sample 10 : CMV+T3.2

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
200	461	1,000	664.9	16,763.0	93	35.0	4,381.45	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-05-18\2015-05-18_001.xad

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Electropherogram Summary Continued ...



Overall Results for sample 11 : TRB1+T3.2

Number of peaks found: 0 Corr. Area 1: 356.0
 Noise: 0.1

Peak table for sample 11 : TRB1+T3.2

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	10,380	75.00	10.9	Upper Marker	113.00

Region table for sample 11 : TRB1+T3.2

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
200	467	1,000	356.0	9,232.0	92	35.3	2,433.45	Blue

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-05-18\2015-05-18_001.xad

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Modified: 5/18/2015 12:06:14 PM

Gel Image

