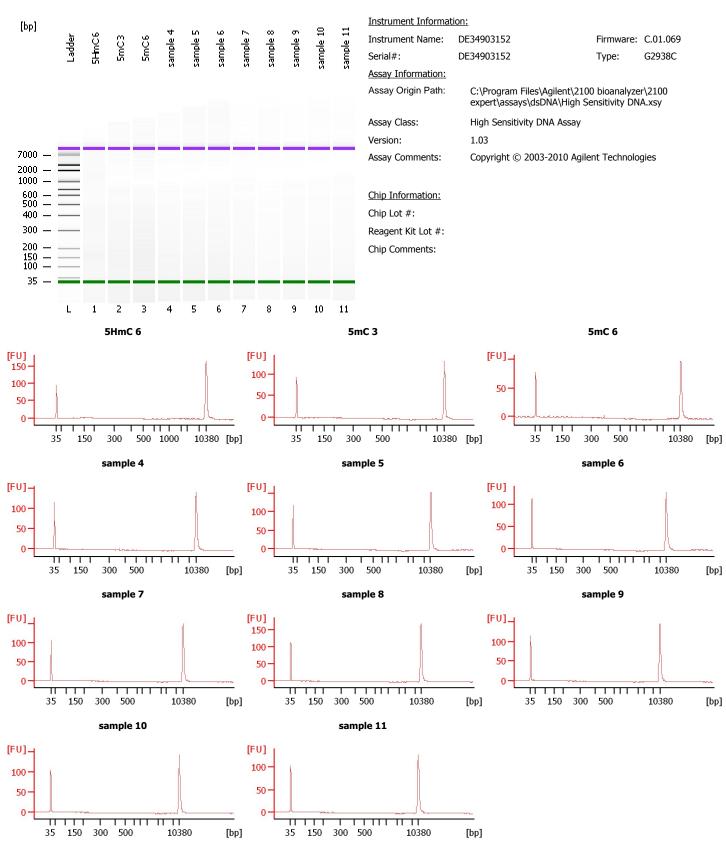
2019-05-21_001.xad Page 1 of 17

Assay Class: High Sensitivity DNA Assay Created: 5/21/2019 2:45:26 PM Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-21\2019-05-21_001.xad Created: 5/21/2019 3:24:22 PM

Electrophoresis File Run Summary



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 $\label{light} \begin{tabular}{ll} High Sensitivity DNA Assay \\ C:\... bioanalyzer ≥ 100 expert $$ data $\geq 0.9-05-21 $$ 2019-05-21_001.$$ xad $$ $\leq 0.9-05-21_001.$$ and $> 0.9-05-21_001.$$ and $$> 0.9-05-21_001.$$ and $> 0.9-05-21_001$ 5/21/2019 2:45:26 PM 5/21/2019 3:24:22 PM Assay Class: Created: Data Path: Modified: **Electrophoresis File Run Summary (Chip Summary) Sample Name** Sample Comment Rest. Digest Status Observation **Result Label Result Color** 5HmC 6 5mC 3 5mC 6 sample 4 sample 5 sample 6 sample 7 sample 8 sample 9 sample 10 sample 11 Ladder

Chip Lot # Reagent Kit Lot #

Chip Comments:

Printed:

5/21/2019 3:29:54 PM

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Assay Class: High Sensitivity DNA Assay 5/21/2019 2:45:26 PM Created: C:\... bioanalyzer\2100 expert\data\2019-05-21\2019-05-21_001.xad 5/21/2019 3:24:22 PM Modified:

Data Path:

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

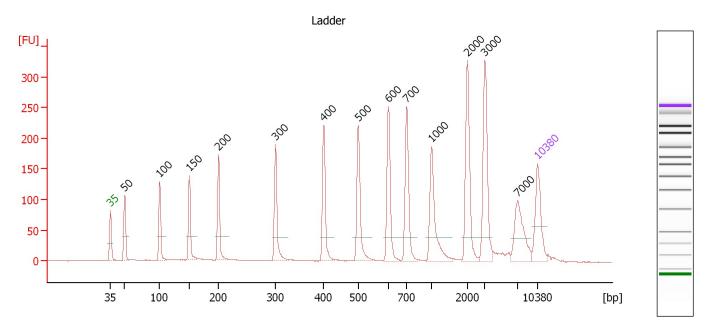
Printed:

5/21/2019 3:29:54 PM

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Assay Class: High Sensitivity DNA Assay C:\... bioanalyzer\2100 expert\data\2019-05-21\2019-05-21_001.xad Created: 5/21/2019 2:45:26 PM Modified: 5/21/2019 3:24:22 PM

Electropherogram Summary



Overall Results for Ladder

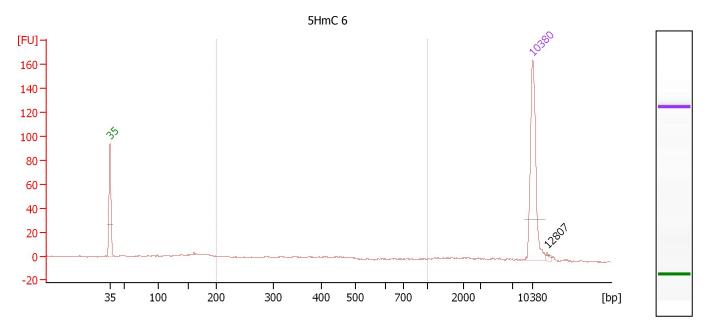
Noise: 0.4

Peak table for Ladder

Pea k		Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	4	35	125.00	5,411.3	Lower Marker	43.00
2	L	50	150.00	4,545.5	Ladder Peak	45.31
3	L	100	150.00	2,272.7	Ladder Peak	51.08
4	L	150	150.00	1,515.2	Ladder Peak	55.93
5	L	200	150.00	1,136.4	Ladder Peak	60.69
6	L	300	150.00	757.6	Ladder Peak	70.03
7	L	400	150.00	568.2	Ladder Peak	77.93
8	L	500	150.00	454.5	Ladder Peak	83.61
9	L	600	150.00	378.8	Ladder Peak	88.55
10	L	700	150.00	324.7	Ladder Peak	91.56
11	L	1,000	150.00	227.3	Ladder Peak	95.62
12	_	2,000	150.00	113.6	Ladder Peak	101.47
13	L	3,000	150.00	75.8	Ladder Peak	104.35
14	L	7,000	150.00	32.5	Ladder Peak	109.68
15		10,380	75.00	10.9	Upper Marker	113.00

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Electropherogram Summary Continued ...



Overall Results for sample 1: <u>5HmC 6</u>

Number of peaks found: 1 Corr. Area 1: 33.8

Noise: 0.4

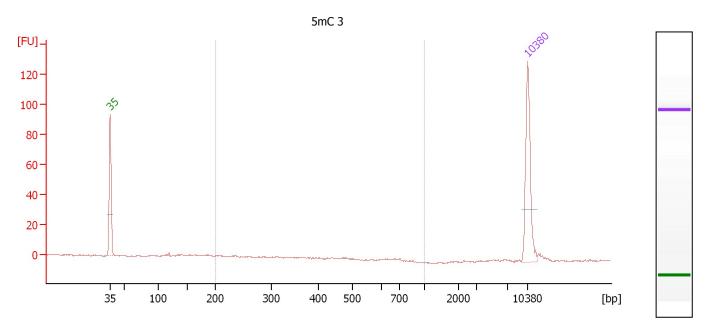
Peak table for sample 1 : <u>5HmC 6</u>

Pea k		Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	4	35	125.00	5,411.3	Lower Marker	43.00
2		10,380	75.00	10.9	Upper Marker	113.00
3		12,807	0.00	0.0		115.38

Region table for sample 1: **5HmC 6** To [bp] Average Size Conc. **Molarity** Co % of Size distribution in From Corr. lor Total **CV** [%] [bp] [bp] [pg/µl] Area [pmol/l] 200 403 33.8 104.0 33 39.0 1,000 23.46

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Electropherogram Summary Continued ...



Overall Results for sample 2: <u>5mC 3</u>

Number of peaks found: 0 Corr. Area 1: 0.8

Noise: 0.4

Peak table for sample 2: <u>5mC 3</u>

Pea k		Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	4	35	125.00	5,411.3	Lower Marker	43.00
2		10,380	75.00	10.9	Upper Marker	113.00

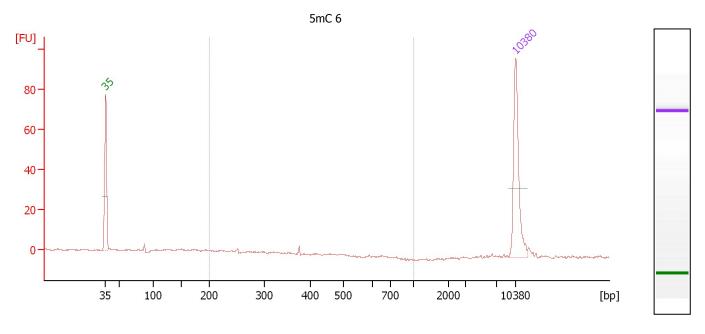
Region table for sample 2: <u>5mC 3</u>

To [bp] Average Size Co % of Size distribution in **From** Conc. Corr. **Molarity** lor Total [bp] [bp] [pg/µl] Area [pmol/l] **CV** [%] 200 1,000 0.97 8.0 6.8 8 7.3 218

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Assay Class: High Sensitivity DNA Assay Created: 5/21/2019 2:45:26 PM Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-21\2019-05-21_001.xad Column Modified: 5/21/2019 3:24:22 PM

Electropherogram Summary Continued ...



Overall Results for sample 3: <u>5mC 6</u>

Number of peaks found: 0 Corr. Area 1: 8.5

Noise: 0.4

Peak table for sample 3: <u>5mC 6</u>

Pea k		Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	4	35	125.00	5,411.3	Lower Marker	43.00
2		10,380	75.00	10.9	Upper Marker	113.00

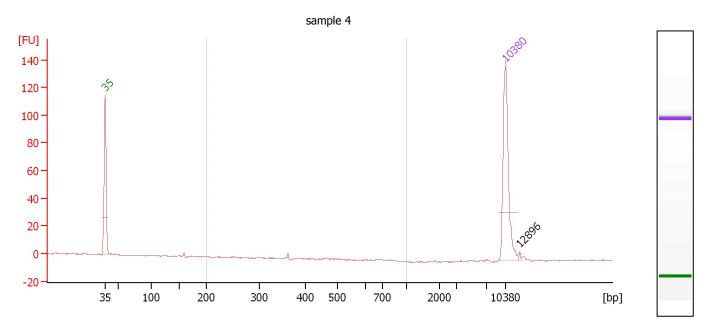
Region table for sample 3: <u>5mC 6</u>

To [bp] Average Size Co % of Size distribution in **From** Conc. Corr. **Molarity** lor Total **CV** [%] [bp] [bp] [pg/µl] Area [pmol/l] 200 1,000 269 11.51 67.7 23 20.6 8.5

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Assay Class: High Sensitivity DNA Assay 5/21/2019 2:45:26 PM Created: C:\... bioanalyzer\2100 expert\data\2019-05-21\2019-05-21_001.xad Data Path: Modified: 5/21/2019 3:24:22 PM

Electropherogram Summary Continued ...



Overall Results for sample 4: sample 4

0.6 Number of peaks found: 1 Corr. Area 1:

Noise: 0.3

Peak table for sample 4: sample 4

Pea k		Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	4	35	125.00	5,411.3	Lower Marker	43.00
2		10,380	75.00	10.9	Upper Marker	113.00
3		12,896	0.00	0.0		115.47

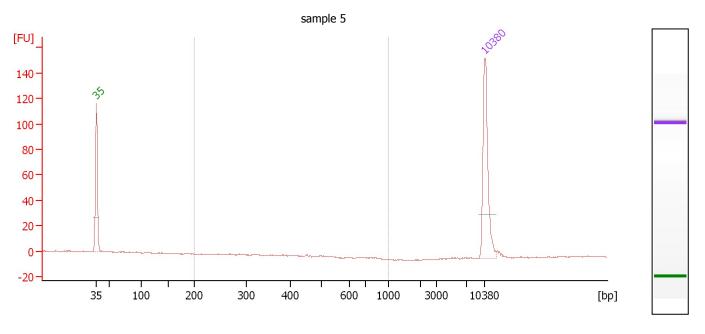
Region table for sample 4: sample 4 To [bp] Average Size Conc. **Molarity** Co % of From Corr.

Size distribution in lor Total [bp] [bp] [pg/µl] Area [pmol/l] **CV** [%] 200 362 0.45 0.6 1.9 1,000 0.2

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Assay Class: High Sensitivity DNA Assay C:\... bioanalyzer\2100 expert\data\2019-05-21\2019-05-21_001.xad Created: 5/21/2019 2:45:26 PM Modified: 5/21/2019 3:24:22 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : sample 5

Number of peaks found: 0 Corr. Area 1: 0.0

Noise: 0.3

Peak table for sample 5 : <u>sample 5</u>

Pea k		Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	4	35	125.00	5,411.3	Lower Marker	43.00
2		10,380	75.00	10.9	Upper Marker	113.00

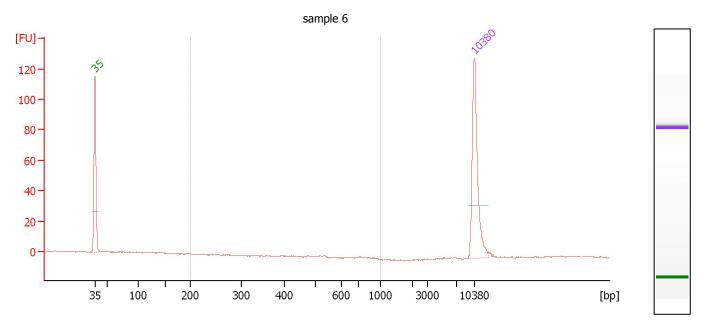
Region table for sample 5: <u>sample 5</u>

From	To [bp] Average Size	Conc.	Corr.	Molarity	Co % of	Size distribution in
[bp]	[bp]	[pg/µl]	Area	[pmol/l]	<u>lor</u> Total	CV [%]
200	1 000 0	0.00	0.0	0.0		0.0

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Assay Class: High Sensitivity DNA Assay Created: 5/21/2019 2:45:26 PM Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-21\2019-05-21_001.xad Created: 5/21/2019 3:24:22 PM

Electropherogram Summary Continued ...



Overall Results for sample 6: sample 6

Number of peaks found: 0 Corr. Area 1: 0.0

Noise: 0.2

Peak table for sample 6 : <u>sample 6</u>

Pea k		Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	4	35	125.00	5,411.3	Lower Marker	43.00
2		10,380	75.00	10.9	Upper Marker	113.00

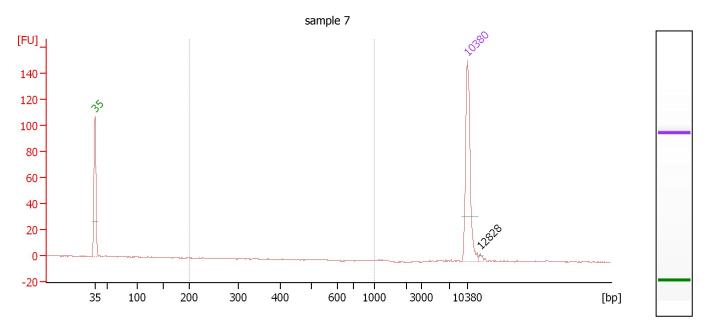
Region table for sample 6: sample 6

From	To [bp] Average Size	Conc.	Corr.	Molarity	Co % of	Size distribution in CV [%]
[bp]	[bp]	[pg/µl]	Area	[pmol/l]	lor Total	
200	1 000 0	0.00	0.0	0.0		0.0

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Assay Class: High Sensitivity DNA Assay C:\... bioanalyzer\2100 expert\data\2019-05-21\2019-05-21_001.xad Created: 5/21/2019 2:45:26 PM Modified: 5/21/2019 3:24:22 PM

Electropherogram Summary Continued ...



Overall Results for sample 7: sample 7

Number of peaks found: 1 Corr. Area 1: 0.0

Noise: 0.3

Peak table for sample 7: <u>sample 7</u>

Pea k		Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	4	35	125.00	5,411.3	Lower Marker	43.00
2		10,380	75.00	10.9	Upper Marker	113.00
3		12,828	0.00	0.0		115.40

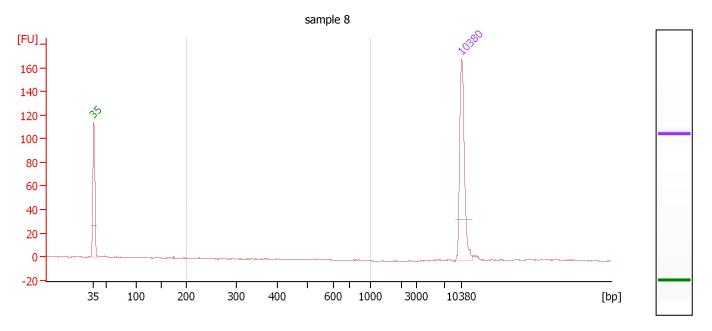
Region table for sample 7: <u>sample 7</u>

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/µl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1.000	539	0.00	0.0	0.0	0	0.6

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Assay Class: High Sensitivity DNA Assay C:\... bioanalyzer\2100 expert\data\2019-05-21\2019-05-21_001.xad Created: 5/21/2019 2:45:26 PM Modified: 5/21/2019 3:24:22 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : sample 8

Number of peaks found: 0 Corr. Area 1: 0.0

Noise: 0.2

Peak table for sample 8 : <u>sample 8</u>

Pea k		Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	4	35	125.00	5,411.3	Lower Marker	43.00
2		10,380	75.00	10.9	Upper Marker	113.00

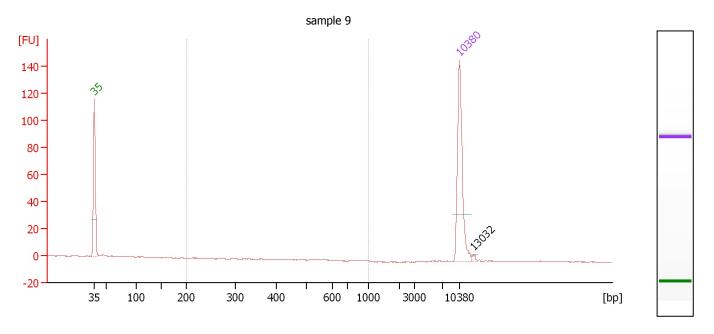
Region table for sample 8: <u>sample 8</u>

From	From To [bp] Average Size		ge Size Conc. Corr. Mo		Molarity	Co % of	Size distribution in	
[bp]		[bp]	[pg/µl]	Area	[pmol/l]	<u>lor</u> Total	CV [%]	
200	1,000	0	0.00	0.0	0.0	0	0.0	

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Assay Class: High Sensitivity DNA Assay C:\... bioanalyzer\2100 expert\data\2019-05-21\2019-05-21_001.xad Created: 5/21/2019 2:45:26 PM Modified: 5/21/2019 3:24:22 PM

Electropherogram Summary Continued ...



Overall Results for sample 9: sample 9

Number of peaks found: 1 Corr. Area 1: 0.0

Noise: 0.2

Peak table for sample 9 : <u>sample 9</u>

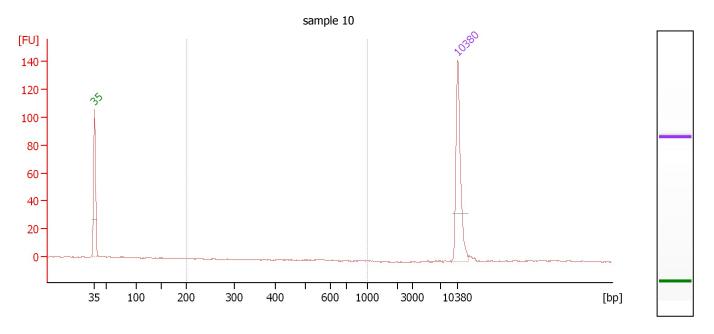
Pea k		Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	4	35	125.00	5,411.3	Lower Marker	43.00
2		10,380	75.00	10.9	Upper Marker	113.00
3		13,032	0.00	0.0		115.60

Region table for sample 9 : <u>sample 9</u>

From	To [bp] A	verage Size	Conc.	Corr.	Molarity	Co % of	Size distribution in	ı
[bp]	[b	pp]	[pg/µl]	Area	[pmol/l]	<u>lor</u> Total	CV [%]	
200	1.000 0		0.00	0.0	0.0	0	0.0	

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Electropherogram Summary Continued ...



Overall Results for sample 10 : sample 10

Number of peaks found: 0 Corr. Area 1: 0.0

Noise: 0.2

Peak table for sample 10 : <u>sample 10</u>

Pea		Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
K 1	4	35	125.00	5 <u>4</u> 11 3	Lower Marker	43.00

2 10,380 75.00 10.9 Upper Marker 43.00

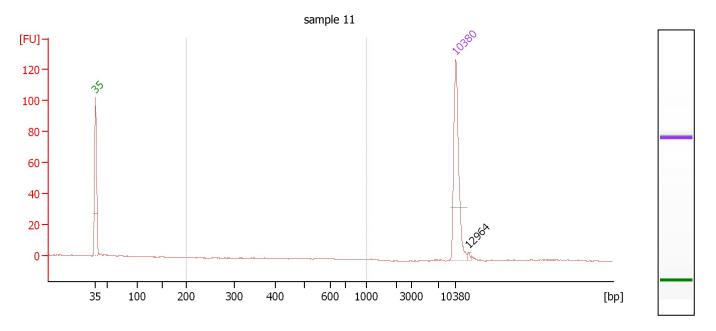
Region table for sample 10 : sample 10

Size distribution in **From** To [bp] Average Size Conc. **Molarity** Co % of Corr. lor Total [pg/µl] Area [pmol/l] **CV** [%] [bp] [bp] 200 0.0 0.0 0 0.0 1,000 0 0.00

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Assay Class: High Sensitivity DNA Assay C:\... bioanalyzer\2100 expert\data\2019-05-21\2019-05-21_001.xad Created: 5/21/2019 2:45:26 PM Modified: 5/21/2019 3:24:22 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : sample 11

Number of peaks found: 1 Corr. Area 1: 0.0

Noise: 0.2

Peak table for sample 11 : sample 11

Pea k		Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	4	35	125.00	5,411.3	Lower Marker	43.00
2		10,380	75.00	10.9	Upper Marker	113.00
3		12,964	0.00	0.0		115.54

Region table for sample 11: sample 11

From [bp]	To [bp] Average Size [bp]	Conc. [pg/µl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
	1 000	0		0.0	0.0	0	0.0
200	1.000	()	0.00	0.0	0.0		0.0

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 $\label{light} \begin{tabular}{ll} High Sensitivity DNA Assay \\ C:\... bioanalyzer ≥ 100 expert $$ data $\geq 0.9-05-21 $$ 2019-05-21_001.$$ xad $$ $\leq 0.9-05-21_001.$$ and $> 0.9-05-21_001.$$ and $$> 0.9-05-21_001.$$ and $> 0.9-05-21_001$ 5/21/2019 2:45:26 PM 5/21/2019 3:24:22 PM Assay Class: Created: Modified: Data Path: **Gel Image** [bp] sample 10 sample 11 sample 4 sample 5 sample 6 sample 7 Ladder 10380 -7000 — 3000 — 2000 — 1000 — 700 — 600 — 500 — 400 -300 — — 200 — 150 — 100 — 50 — 35 **—** 7 L 1 2 3 4 5 6 8 9 10 11

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Assay Class: High Sensitivity DNA Assay C:\... bioanalyzer\2100 expert\data\2019-05-21\2019-05-21_001.xad Created: 5/21/2019 2:45:26 PM Modified: 5/21/2019 3:24:22 PM

Run Logbook

Description Run ended on port 1 (Number of wells acquired: 12)	Number	Source Instrument	Category Run	Sub Category	Time 5/21/2019 3:26:42 PM	Time Zone (GMT07:00) Pacific Standard Time	User UC Davis	Host D8XSMGH1
Run started on port 1 (File: C:\Program Files\Agilent\21 00 bioanalyzer\210 0 expert\data\2019-05-21\2019-0 5-21_001.xad)	L	Instrument	Run		5/21/2019 2:45:31 PM	(GMT07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number: G2938C	r	Instrument	Run		5/21/2019 2:45:31 PM	(GMT07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		5/21/2019 2:45:31 PM	(GMT07:00) Pacific Standard Time		D8XSMGH1
Vendor : Agilent Technologies	t	Instrument	Run		5/21/2019 2:45:31 PM	(GMT07:00) Pacific Standard Time		D8XSMGH1
Serial# : DE34903152		Instrument	Run		5/21/2019 2:45:31 PM	(GMT07:00) Pacific Standard Time		D8XSMGH1
Firmware : C.01.069		Instrument	Run		5/21/2019 2:45:31 PM	(GMT07:00) Pacific Standard Time		D8XSMGH1
Cartridge : Electrode		Instrument	Run		5/21/2019 2:45:31 PM	(GMT07:00) Pacific Standard Time		D8XSMGH1