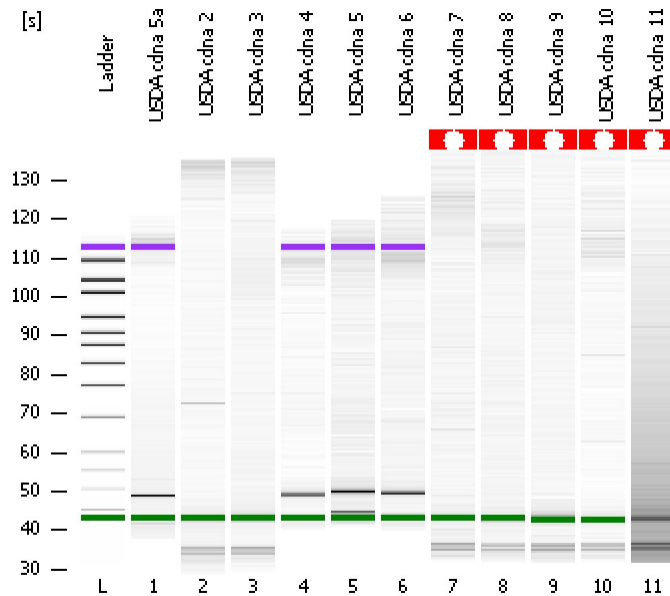


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-01\2014-10-01_002.xad

Created: 10/1/2014 11:30:40 AM
Modified: 10/1/2014 12:18:45 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

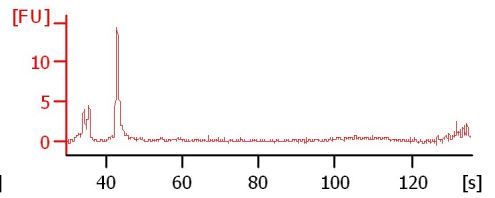
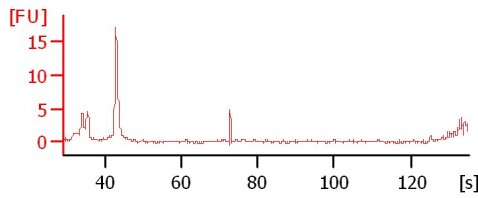
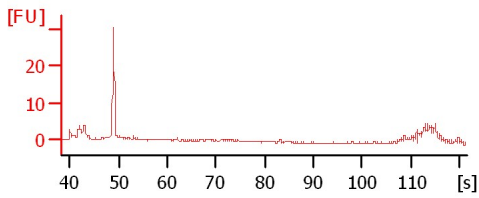
Chip Information:

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

USDA cdna 5a

USDA cdna 2

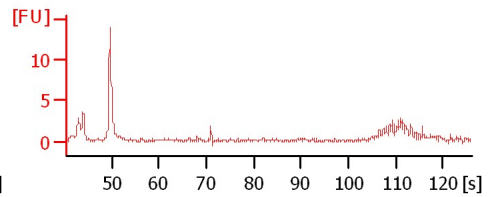
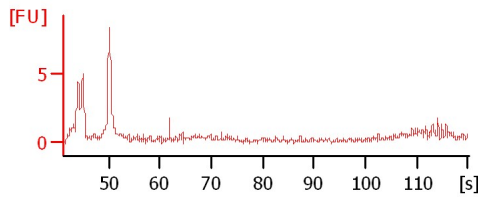
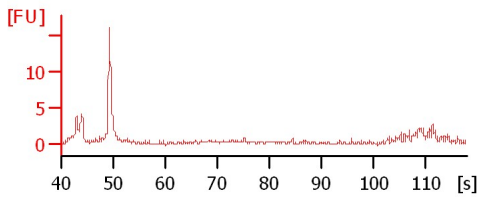
USDA cdna 3



USDA cdna 4

USDA cdna 5

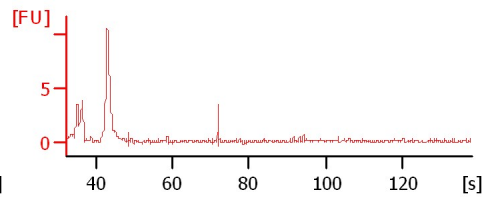
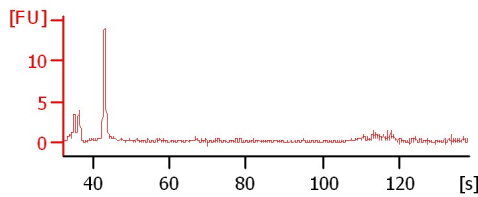
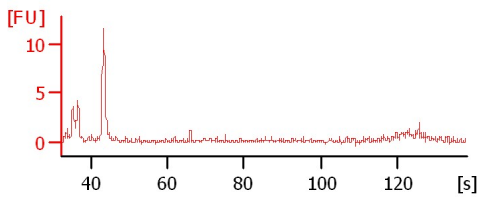
USDA cdna 6



USDA cdna 7

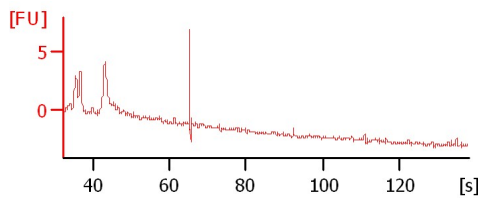
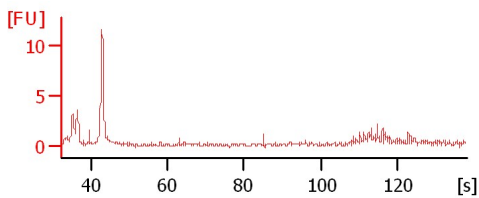
USDA cdna 8

USDA cdna 9



USDA cdna 10

USDA cdna 11



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-01\2014-10-01_002.xad

Created: 10/1/2014 11:30:40 AM
 Modified: 10/1/2014 12:18:45 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
USDA cdna 5a		<input type="checkbox"/>	✓			
USDA cdna 2		<input type="checkbox"/>	✓			
USDA cdna 3		<input type="checkbox"/>	✓			
USDA cdna 4		<input type="checkbox"/>	✓			
USDA cdna 5		<input type="checkbox"/>	✓			
USDA cdna 6		<input type="checkbox"/>	✓			
USDA cdna 7		<input type="checkbox"/>	✓			
USDA cdna 8		<input type="checkbox"/>	✓			
USDA cdna 9		<input type="checkbox"/>	✓			
USDA cdna 10		<input type="checkbox"/>	✓			
USDA cdna 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\2014-10-01\2014-10-01_002.xad

Created: 10/1/2014 11:30:40 AM
Modified: 10/1/2014 12:18:45 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

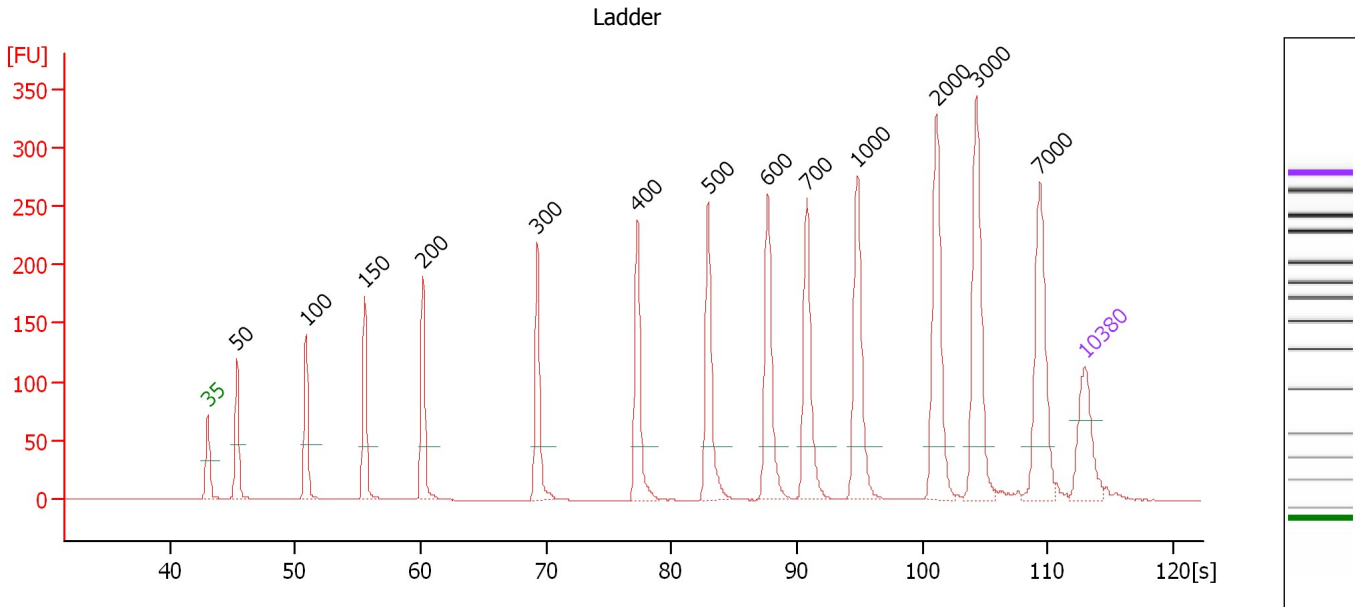
Ladder

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\2014-10-01\2014-10-01_002.xad

Created: 10/1/2014 11:30:40 AM
 Modified: 10/1/2014 12:18:45 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.1

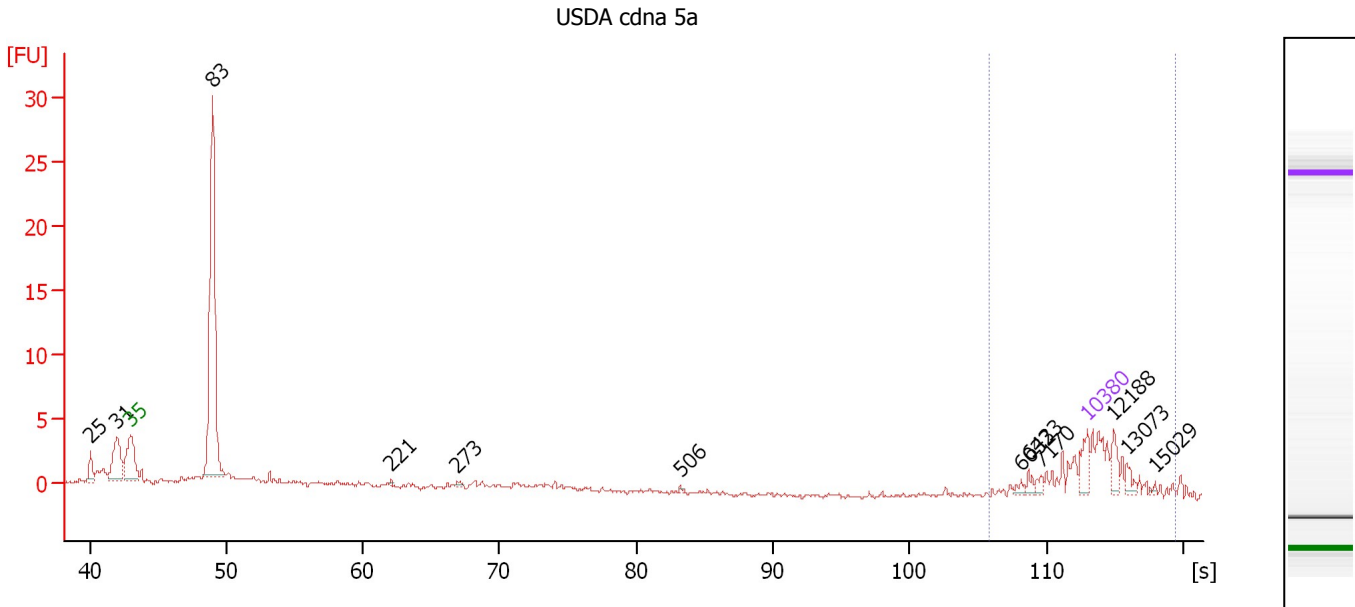
Peak table for Ladder

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\2014-10-01\2014-10-01_002.xad

Created: 10/1/2014 11:30:40 AM
 Modified: 10/1/2014 12:18:45 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 1 : USDA cDNA 5a

Height Threshold [FU] : 0.2

Overall Results for sample 1 : USDA cDNA 5a

Number of peaks found: 12 Corr. Area 1: 19.5
 Noise: 0.2

Peak table for sample 1 : USDA cDNA 5a

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	25	0.00	0.0	
2	31	0.00	0.0	
3	35	125.00	5,411.3	Lower Marker
4	83	1,734.29	31,538.6	
5	221	10.18	69.9	
6	273	14.04	77.8	
7	506	5.50	16.5	
8	6,032	16.28	4.1	
9	6,433	22.07	5.2	
10	7,170	19.61	4.1	
11	10,380	75.00	10.9	Upper Marker
12	12,188	0.00	0.0	
13	13,073	0.00	0.0	
14	15,029	0.00	0.0	

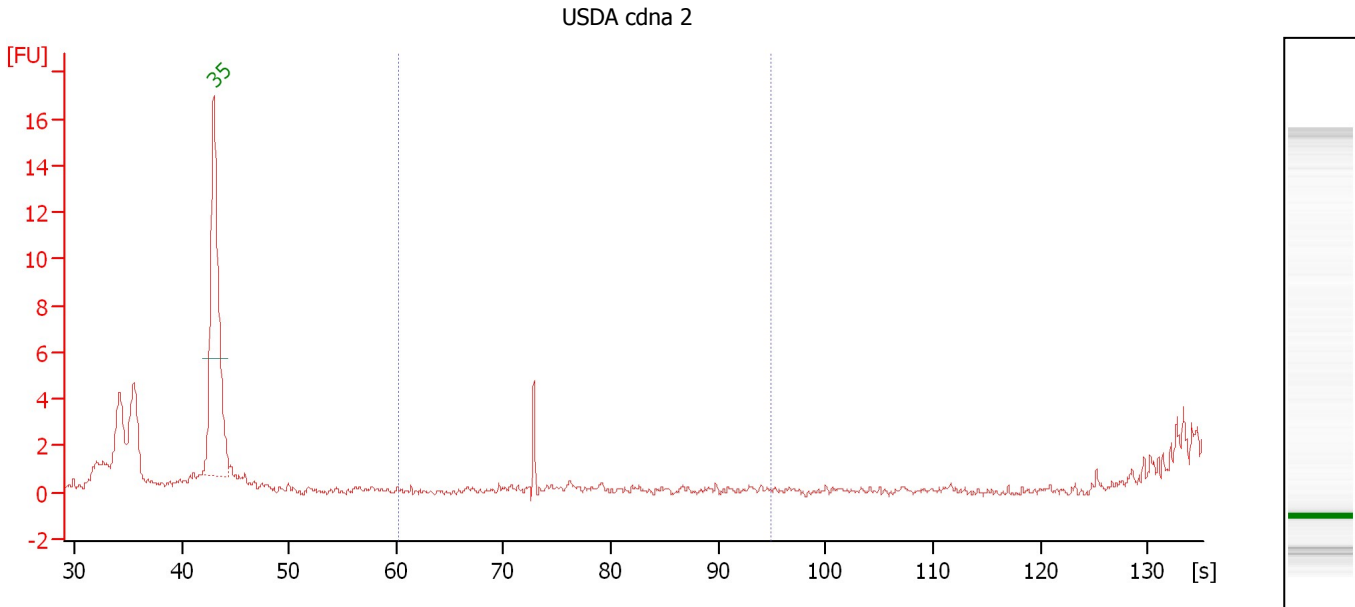
Region table for sample 1 : USDA cDNA 5a

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
4,143	10,600	16,445	19.5	21	22.4	443.64	67.1	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-01\2014-10-01_002.xad

Created: 10/1/2014 11:30:40 AM
 Modified: 10/1/2014 12:18:45 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : USDA cdna 2

Number of peaks found: 0 Corr. Area 1: 0.9
 Noise: 0.1

Peak table for sample 2 : USDA cdna 2

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Upper Marker, Lower Marker

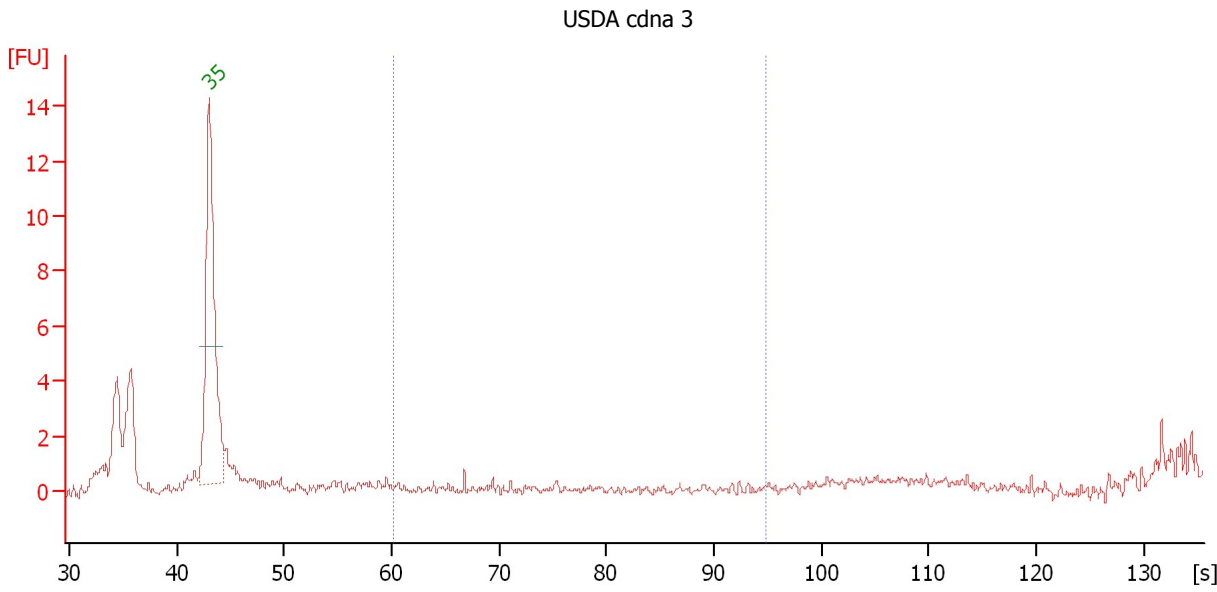
Region table for sample 2 : USDA cdna 2

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	344	1,000	0.9	4	0.2	3.19	14.1	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-01\2014-10-01_002.xad

Created: 10/1/2014 11:30:40 AM
 Modified: 10/1/2014 12:18:45 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : USDA cDNA 3

Number of peaks found: 0 Corr. Area 1: 0.1
 Noise: 0.2

Peak table for sample 3 : USDA cDNA 3

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Upper Marker, Lower Marker

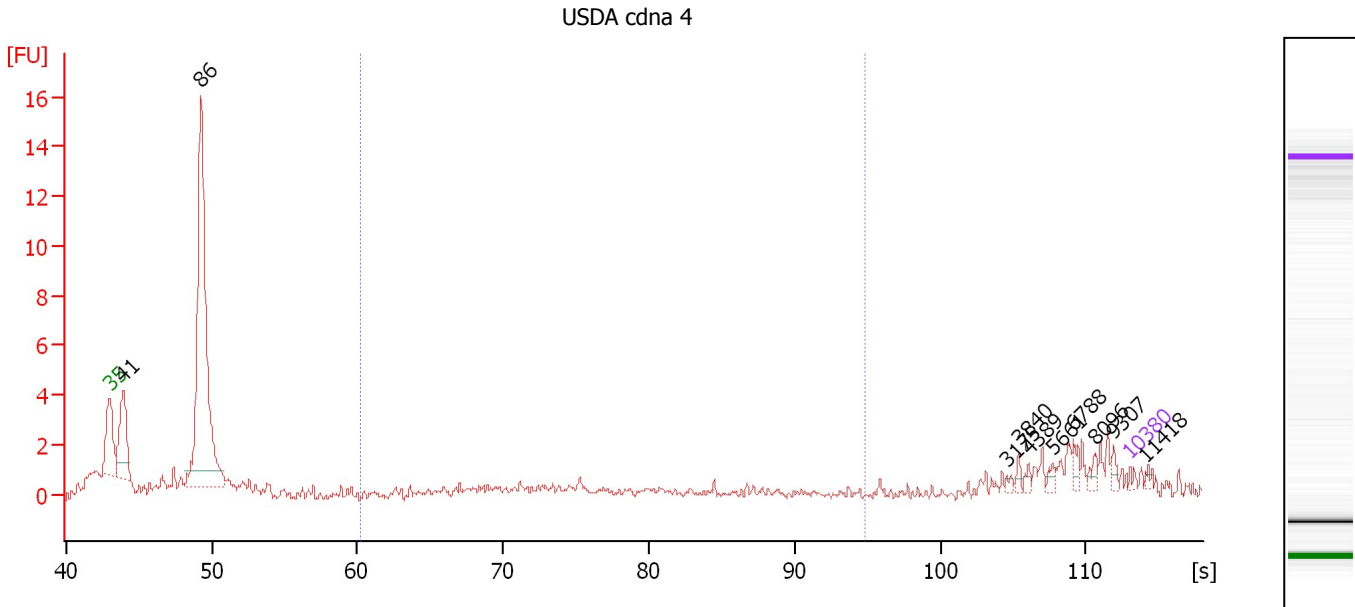
Region table for sample 3 : USDA cDNA 3

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	265	1,000	0.1	0	10.1	0.55	3.1	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-01\2014-10-01_002.xad

Created: 10/1/2014 11:30:40 AM
 Modified: 10/1/2014 12:18:45 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 4 : USDA cdna 4

Height Threshold [FU] : 0.6

Overall Results for sample 4 : USDA cdna 4

Number of peaks found: 10 Corr. Area 1: 4.4
 Noise: 0.2

Peak table for sample 4 : USDA cdna 4

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	41	3,130.43	116,070.8	
3	86	13,243.06	234,338.4	
4	3,175	69.56	33.2	
5	3,840	104.70	41.3	
6	4,389	102.44	35.4	
7	5,661	118.57	31.7	
8	6,788	185.42	41.4	
9	8,096	161.04	30.1	
10	9,307	129.81	21.1	
11	10,380	75.00	10.9	Upper Marker
12	11,418	0.00	0.0	

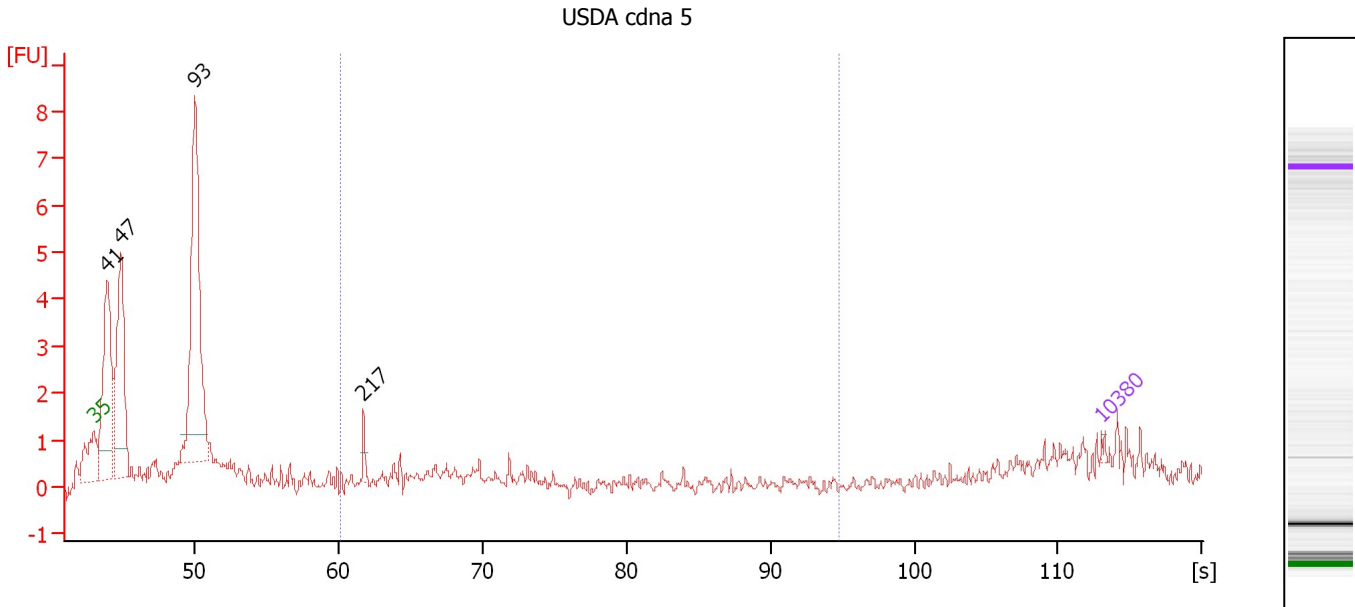
Region table for sample 4 : USDA cdna 4

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	372	1,000	4.4	6	32.0	1,288.49	5,842.6	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-01\2014-10-01_002.xad

Created: 10/1/2014 11:30:40 AM
 Modified: 10/1/2014 12:18:45 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 5 : USDA cdna 5

Height Threshold [FU] : 0.6

Overall Results for sample 5 : USDA cdna 5

Number of peaks found: 4 Corr. Area 1: 2.9
 Noise: 0.2

Peak table for sample 5 : USDA cdna 5

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	41	7,909.60	291,070.8	
3	47	7,461.63	239,988.7	
4	93	11,824.19	193,083.6	
5	217	370.98	2,586.5	
6	10,380	75.00	10.9	Upper Marker

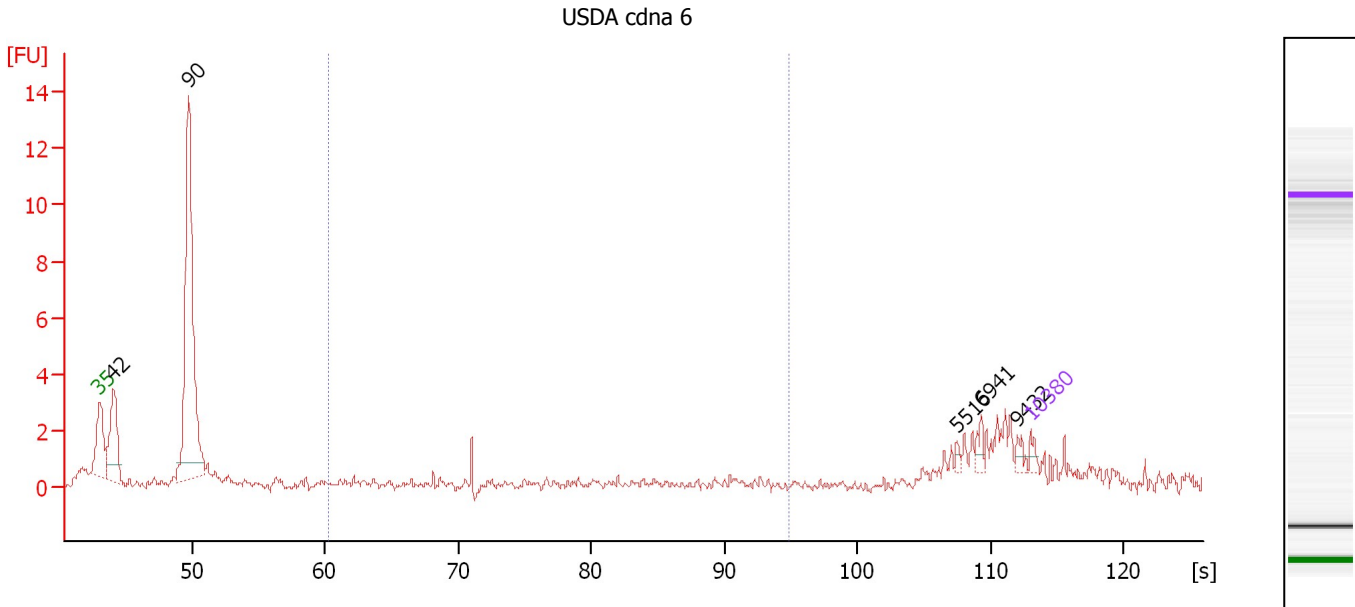
Region table for sample 5 : USDA cdna 5

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	288	1,000	2.9	5	26.0	1,649.67	9,235.8	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-01\2014-10-01_002.xad

Created: 10/1/2014 11:30:40 AM
 Modified: 10/1/2014 12:18:45 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 6 : USDA cDNA 6

Height Threshold [FU] : 0.6

Overall Results for sample 6 : USDA cDNA 6

Number of peaks found: 5 Corr. Area 1: 0.6
 Noise: 0.2

Peak table for sample 6 : USDA cDNA 6

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	42	1,631.23	59,295.5	
3	90	5,779.62	97,712.7	
4	5,516	52.49	14.4	
5	6,941	107.53	23.5	
6	9,432	95.86	15.4	
7	10,380	75.00	10.9	Upper Marker

Region table for sample 6 : USDA cDNA 6

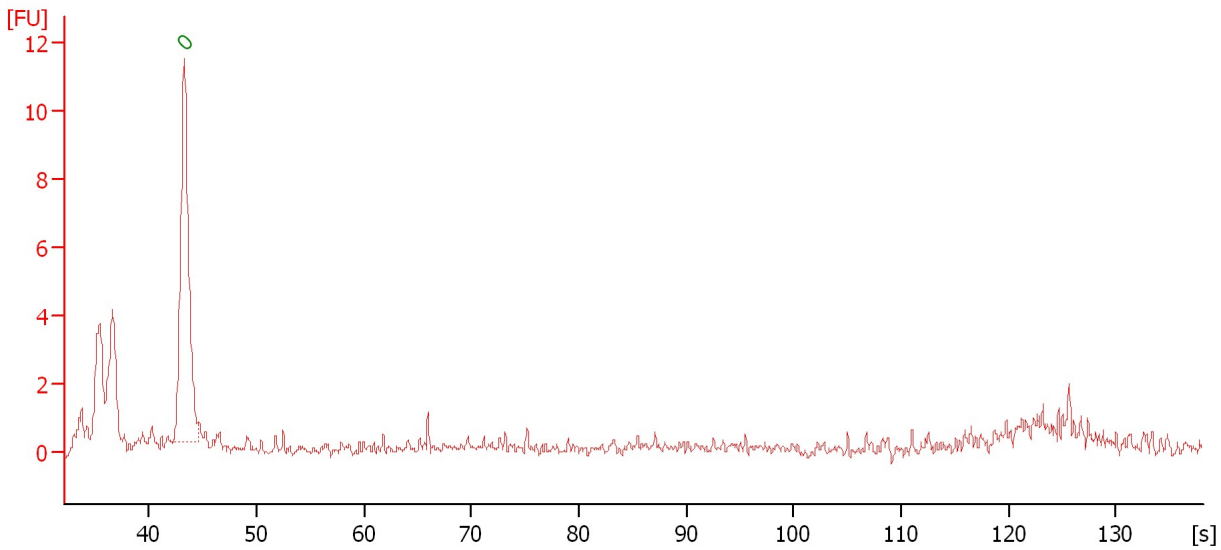
From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	398	1,000	0.6	1	39.9	91.05	402.5	Blue

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-01\2014-10-01_002.xad

Created: 10/1/2014 11:30:40 AM
Modified: 10/1/2014 12:18:45 PM

Electropherogram Summary Continued ...

USDA cdna 7



Overall Results for sample 7 : USDA cdna 7

Number of peaks found: 0 Noise: 0.2

Peak table for sample 7 : USDA cdna 7

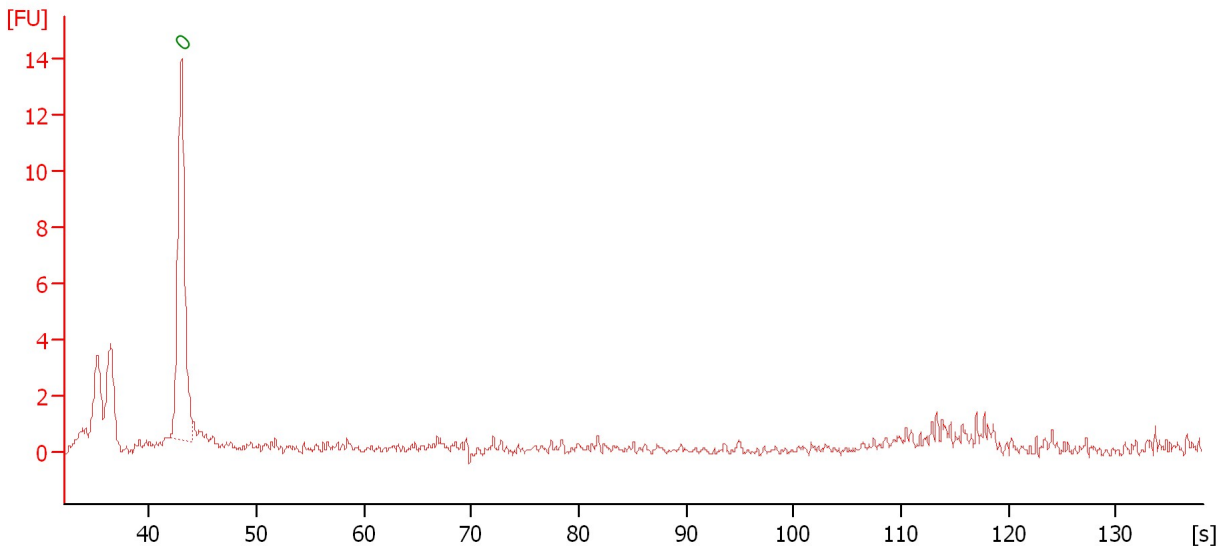
Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	0	0.00	0.0	Lower Marker

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-01\2014-10-01_002.xad

Created: 10/1/2014 11:30:40 AM
Modified: 10/1/2014 12:18:45 PM

Electropherogram Summary Continued ...

USDA cdna 8



Overall Results for sample 8 : USDA cdna 8

Number of peaks found: 0 Noise: 0.2

Peak table for sample 8 : USDA cdna 8

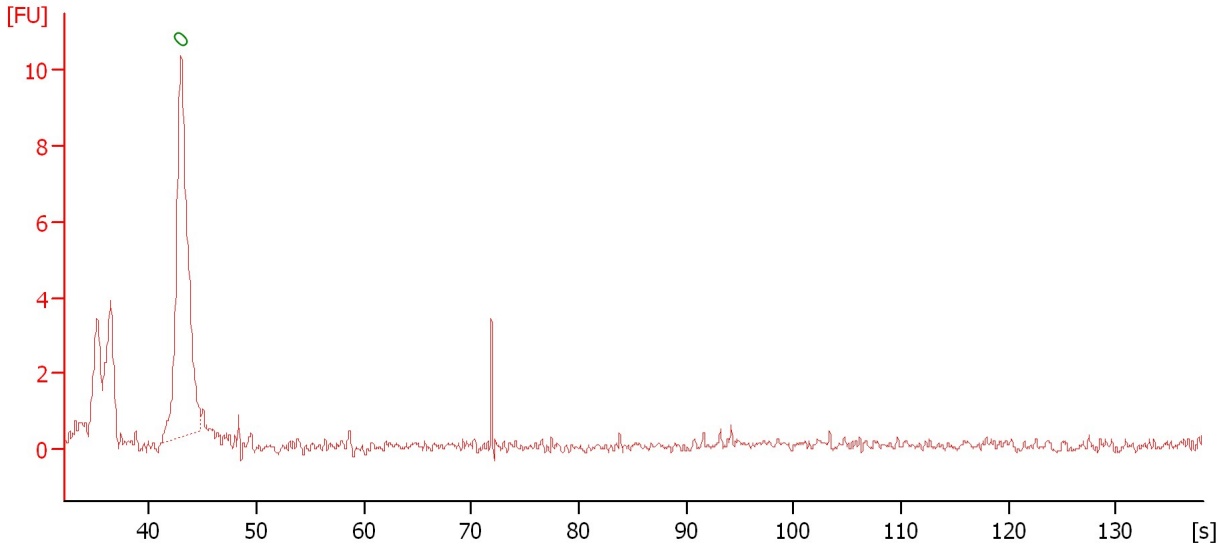
Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	0	0.00	0.0	Lower Marker

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-01\2014-10-01_002.xad

Created: 10/1/2014 11:30:40 AM
Modified: 10/1/2014 12:18:45 PM

Electropherogram Summary Continued ...

USDA cdna 9



Overall Results for sample 9 : USDA cdna 9

Number of peaks found: 0 Noise: 0.1

Peak table for sample 9 : USDA cdna 9

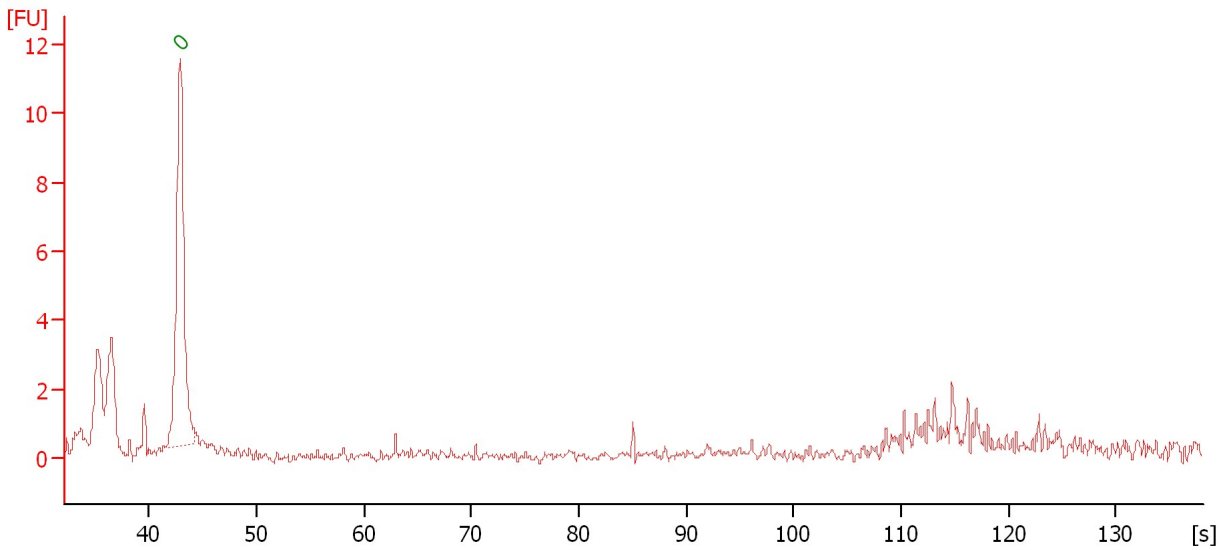
Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	0	0.00	0.0	Lower Marker

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-01\2014-10-01_002.xad

Created: 10/1/2014 11:30:40 AM
Modified: 10/1/2014 12:18:45 PM

Electropherogram Summary Continued ...

USDA cdna 10



Overall Results for sample 10 : USDA cdna 10

Number of peaks found: 0 Noise: 0.2

Peak table for sample 10 : USDA cdna 10

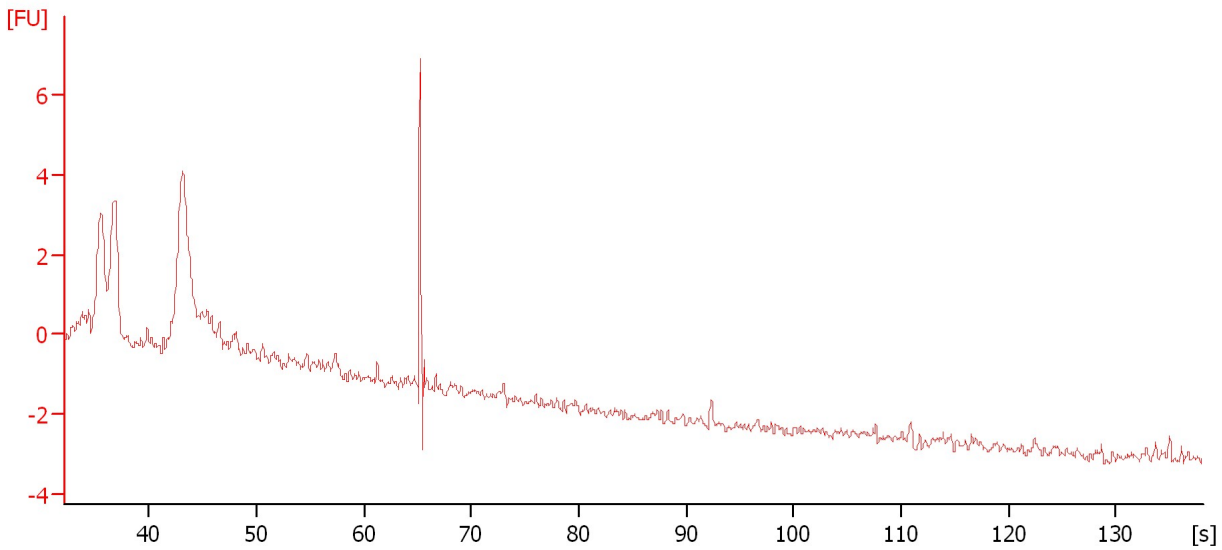
Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	0	0.00	0.0	Lower Marker

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-01\2014-10-01_002.xad

Created: 10/1/2014 11:30:40 AM
Modified: 10/1/2014 12:18:45 PM

Electropherogram Summary Continued ...

USDA cdna 11



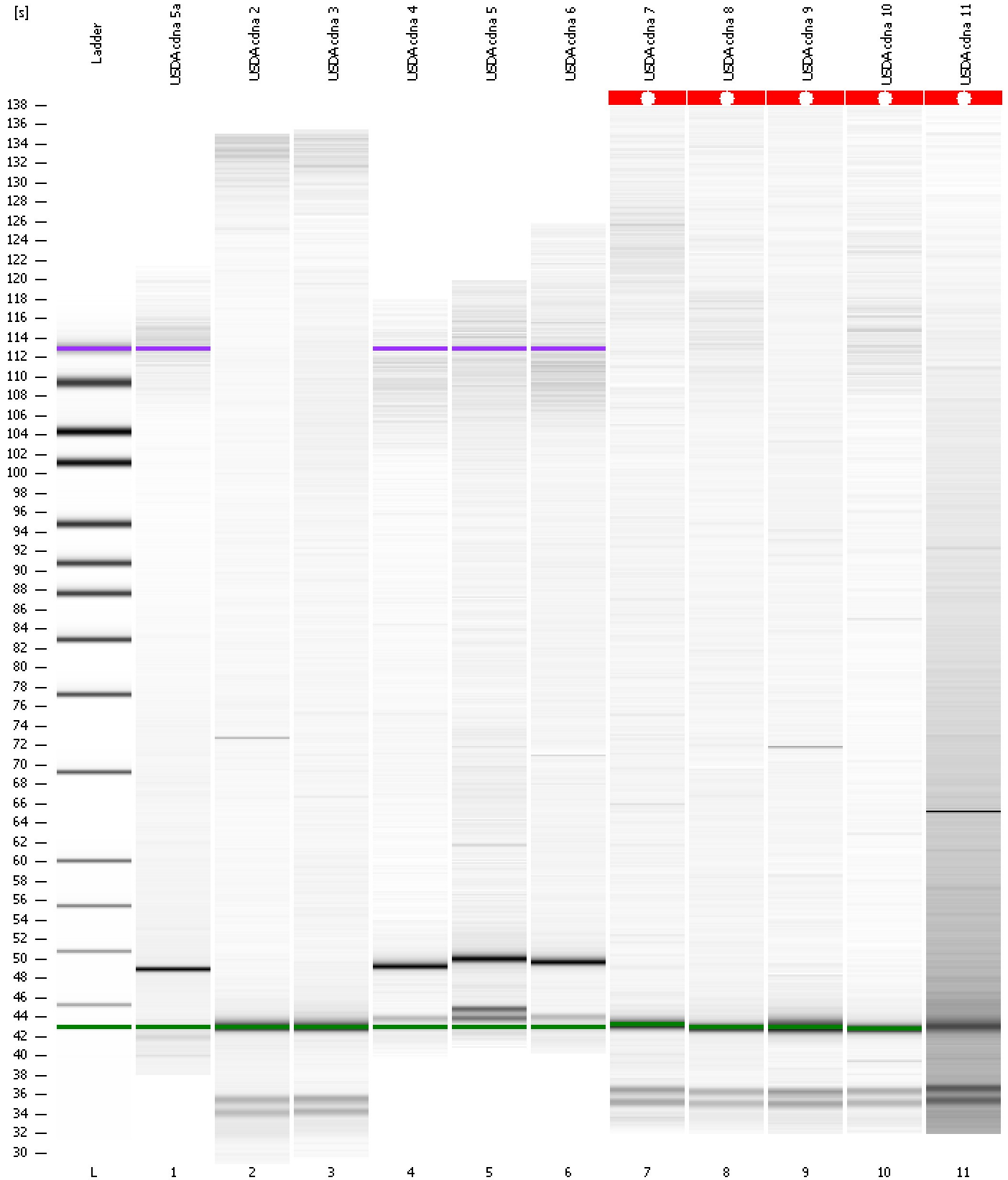
Overall Results for sample 11 : USDA cdna 11

Noise: 0.1

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-01\2014-10-01_002.xad

Created: 10/1/2014 11:30:40 AM
Modified: 10/1/2014 12:18:45 PM

Gel Image

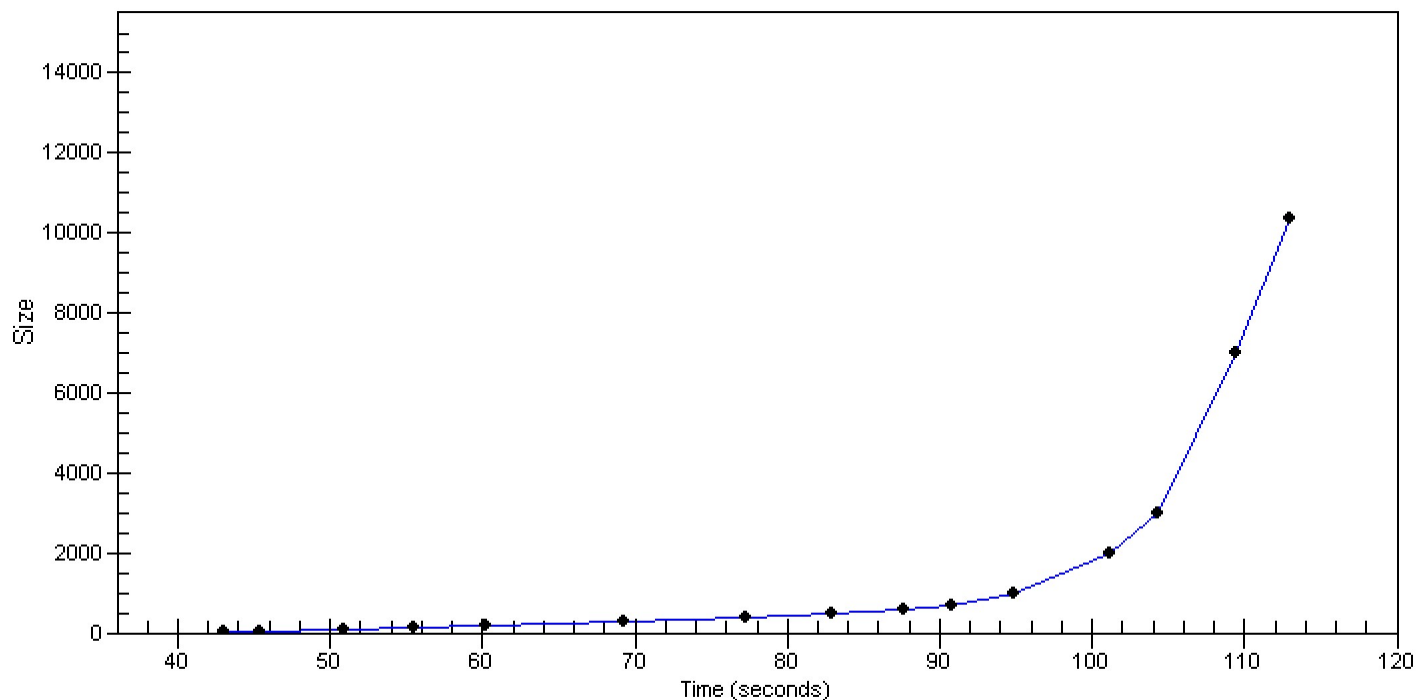


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-01\2014-10-01_002.xad

Created: 10/1/2014 11:30:40 AM
Modified: 10/1/2014 12:18:45 PM

Curves

Standard Curve



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-01\2014-10-01_002.xad

Created: 10/1/2014 11:30:40 AM
 Modified: 10/1/2014 12:18:45 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		10/1/2014 12:11:59 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2014-10-01\2014-10-01_002.xad)		Instrument	Run		10/1/2014 11:30:46 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		10/1/2014 11:30:46 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		10/1/2014 11:30:46 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		10/1/2014 11:30:46 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		10/1/2014 11:30:46 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		10/1/2014 11:30:46 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		10/1/2014 11:30:46 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1