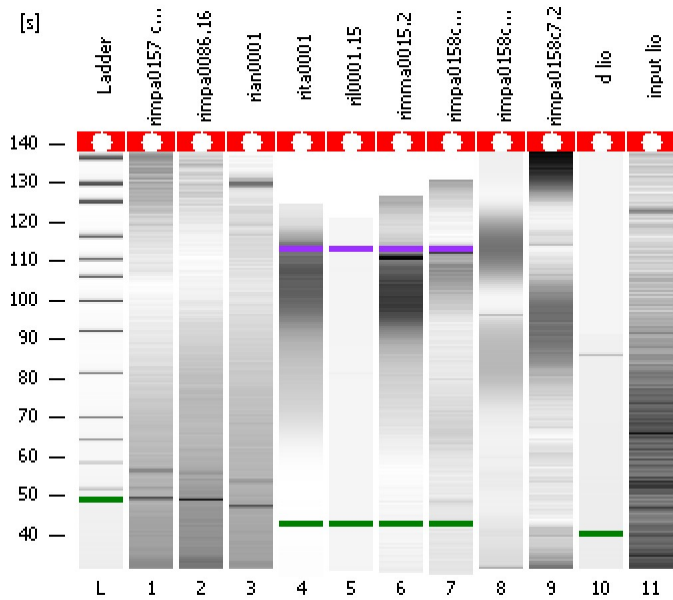


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-22\2013-03-22_001.xad

Created: 3/22/2013 10:24:22 AM
Modified: 3/22/2013 11:05:44 AM

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

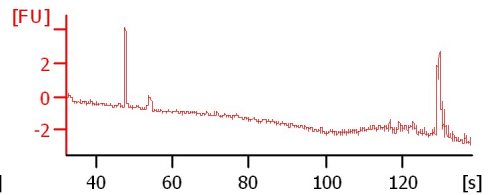
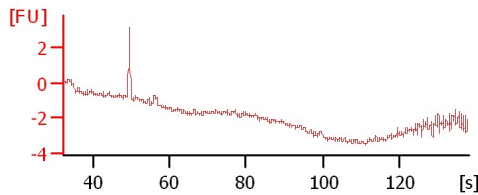
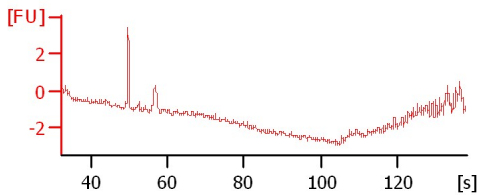
Chip Information:

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

rimpa0157 c8.2

rimpa0086.16

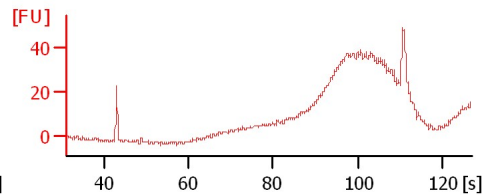
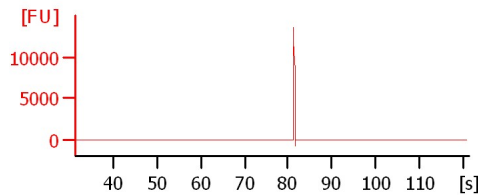
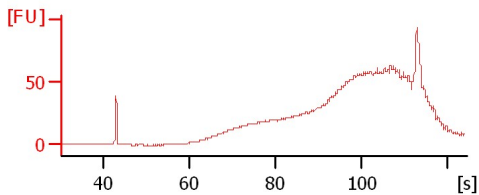
rian0001



rita0001

ril0001.15

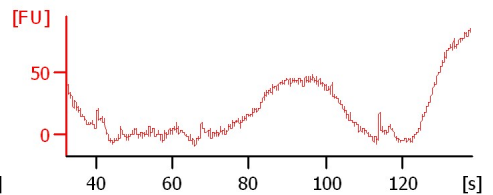
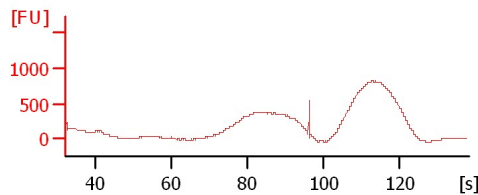
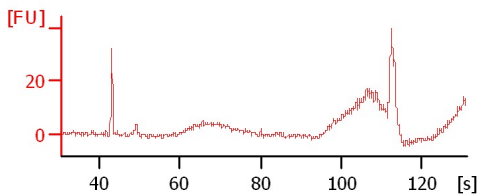
rimma0015.2



rimpa0158c19.2

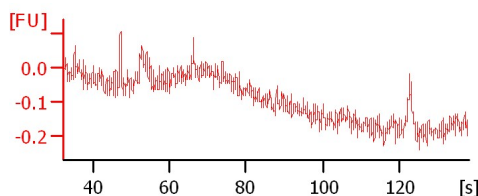
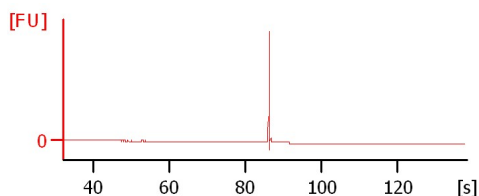
rimpa0158c19.2 preernr

rimpa0158c7.2



d lio

input lio



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-22\2013-03-22_001.xad

Created: 3/22/2013 10:24:22 AM
 Modified: 3/22/2013 11:05:44 AM

Electrophoresis File Run Summary (Chip Summary)

| Sample Name | Sample Comment | Rest. Digest | Status | Observation | Result Label | Result Color |
|-----------------------|----------------|--------------------------|--------|-------------|--------------|--------------|
| rimpa0157 c8.2 | | <input type="checkbox"/> | ✓ | | | |
| rimpa0086.16 | | <input type="checkbox"/> | ✓ | | | |
| rian0001 | | <input type="checkbox"/> | ✓ | | | |
| rita0001 | | <input type="checkbox"/> | ✓ | | | |
| ril0001.15 | | <input type="checkbox"/> | ⚠ | | | |
| rimma0015.2 | | <input type="checkbox"/> | ✓ | | | |
| rimpa0158c19.2 | | <input type="checkbox"/> | ✓ | | | |
| rimpa0158c19.2 preenr | | <input type="checkbox"/> | ✓ | | | |
| rimpa0158c7.2 | | <input type="checkbox"/> | ✓ | | | |
| d lio | | <input type="checkbox"/> | ⚠ | | | |
| input lio | | <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\2013-03-22\2013-03-22_001.xad

Created: 3/22/2013 10:24:22 AM
Modified: 3/22/2013 11:05:44 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/ μ l] : 1950
Uses Standard Area for Ladder Fragments
Lower Marker Concentration [pg/ μ l] : 125
Upper Marker Concentration [pg/ μ l] : 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

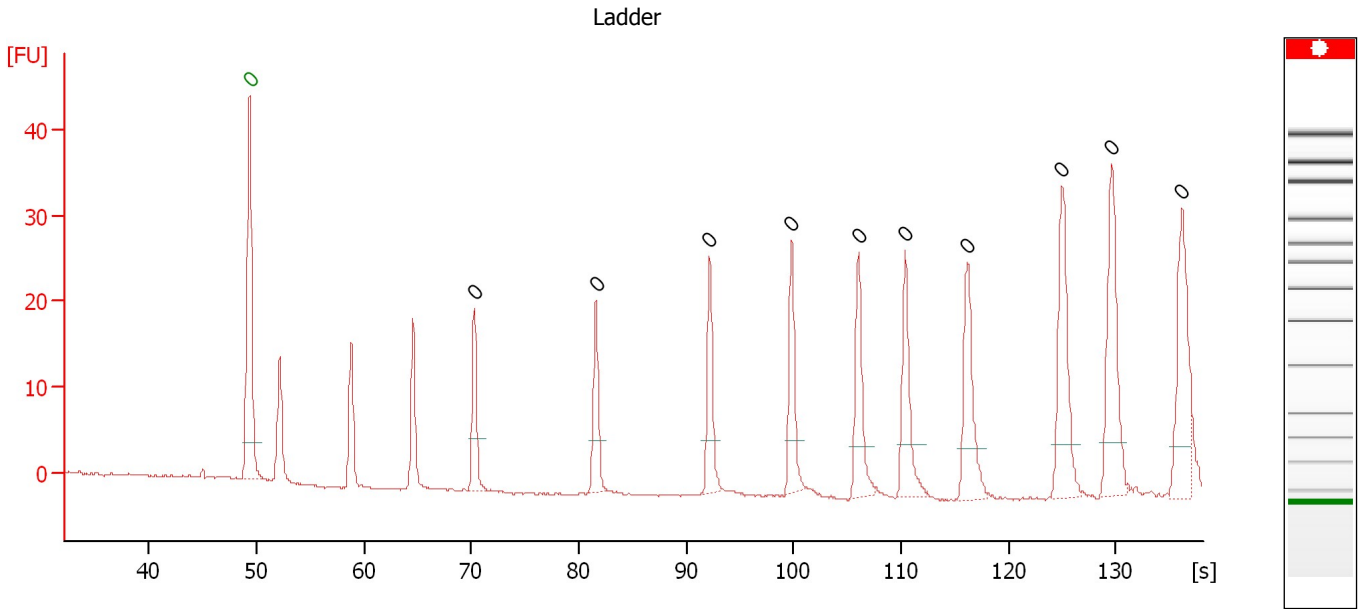
Ladder

| 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\2013-03-22\2013-03-22_001.xad

Created: 3/22/2013 10:24:22 AM
 Modified: 3/22/2013 11:05:44 AM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.1

Peak table for Ladder

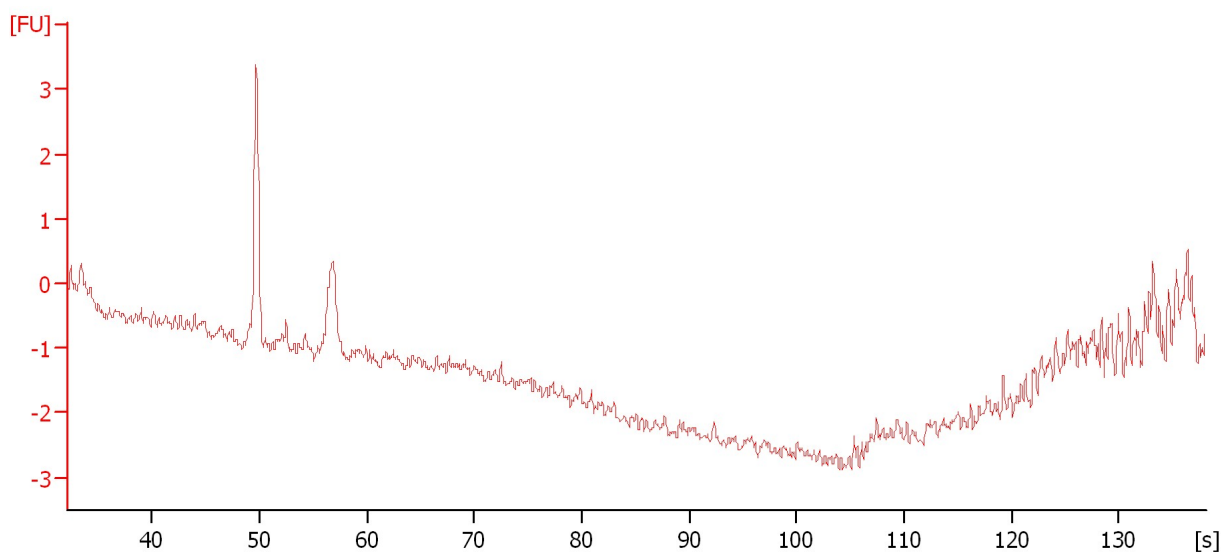
| Peak | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations |
|------|-----------|---------------|-------------------|--------------|
| 1 | 0 | 0.00 | 0.0 | Lower Marker |
| 2 | 0 | 0.00 | 0.0 | Ladder Peak |
| 3 | 0 | 0.00 | 0.0 | Ladder Peak |
| 4 | 0 | 0.00 | 0.0 | Ladder Peak |
| 5 | 0 | 0.00 | 0.0 | Ladder Peak |
| 6 | 0 | 0.00 | 0.0 | Ladder Peak |
| 7 | 0 | 0.00 | 0.0 | Ladder Peak |
| 8 | 0 | 0.00 | 0.0 | Ladder Peak |
| 9 | 0 | 0.00 | 0.0 | Ladder Peak |
| 10 | 0 | 0.00 | 0.0 | Ladder Peak |
| 11 | 0 | 0.00 | 0.0 | Ladder Peak |

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-22\2013-03-22_001.xad

Created: 3/22/2013 10:24:22 AM
Modified: 3/22/2013 11:05:44 AM

Electropherogram Summary Continued ...

rimpa0157 c8.2



Overall Results for sample 1 : rimpa0157 c8.2

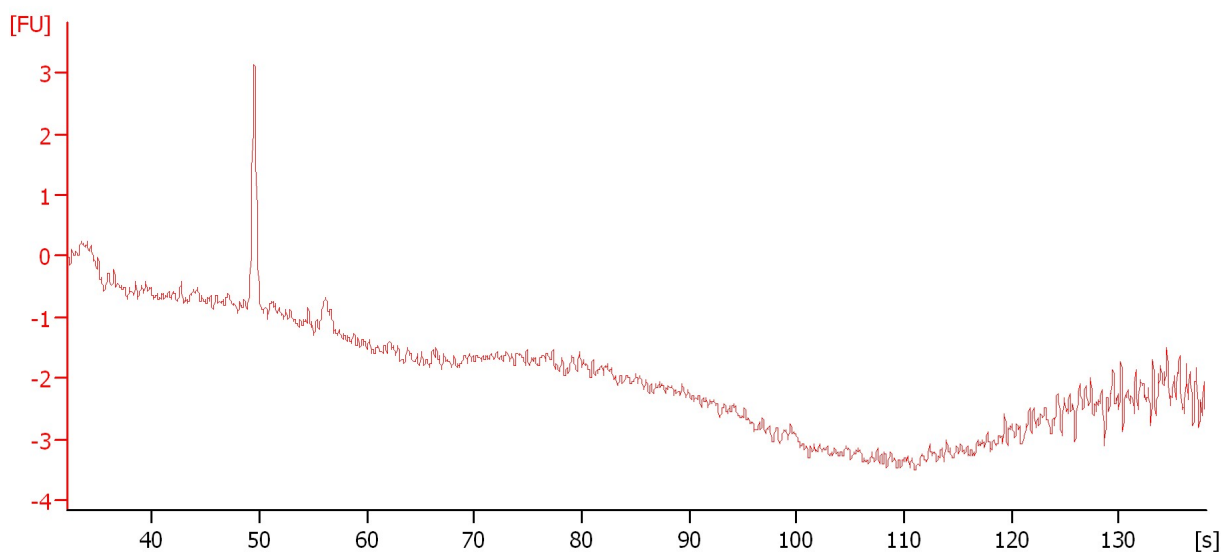
Noise: 0.2

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-22\2013-03-22_001.xad

Created: 3/22/2013 10:24:22 AM
Modified: 3/22/2013 11:05:44 AM

Electropherogram Summary Continued ...

rimpa0086.16



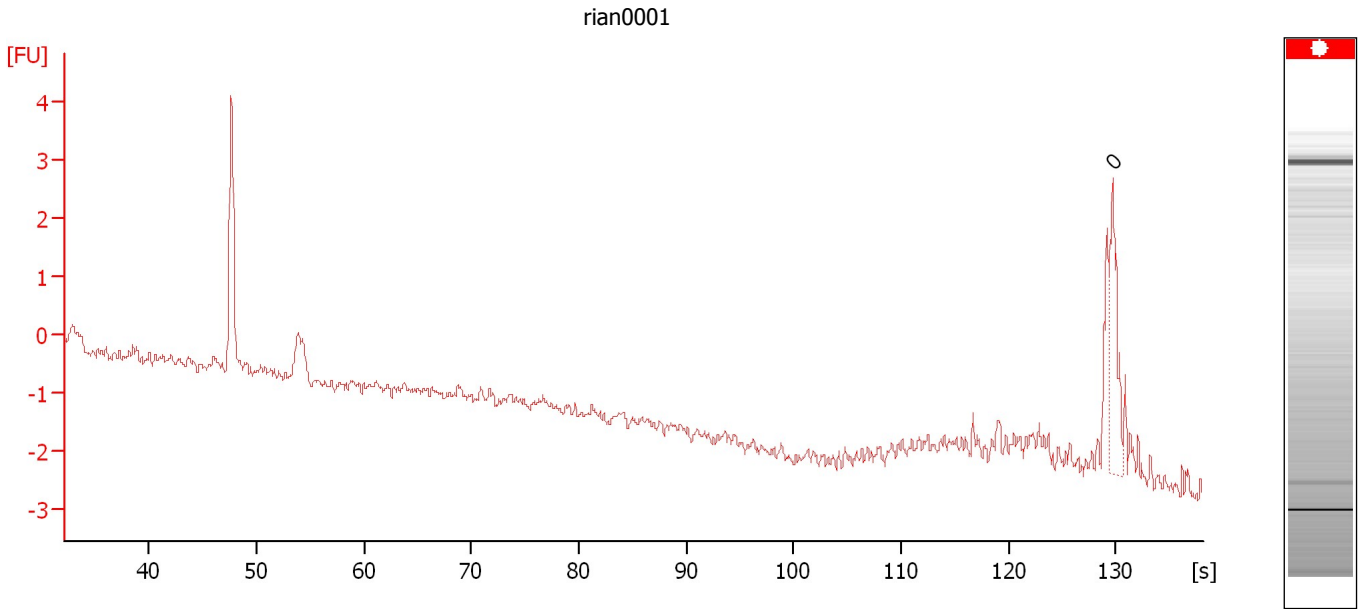
Overall Results for sample 2 : rimpa0086.16

Noise: 0.1

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-22\2013-03-22_001.xad

Created: 3/22/2013 10:24:22 AM
Modified: 3/22/2013 11:05:44 AM

Electropherogram Summary Continued ...



Overall Results for sample 3 : rian0001

Number of peaks found: 0 Noise: 0.1

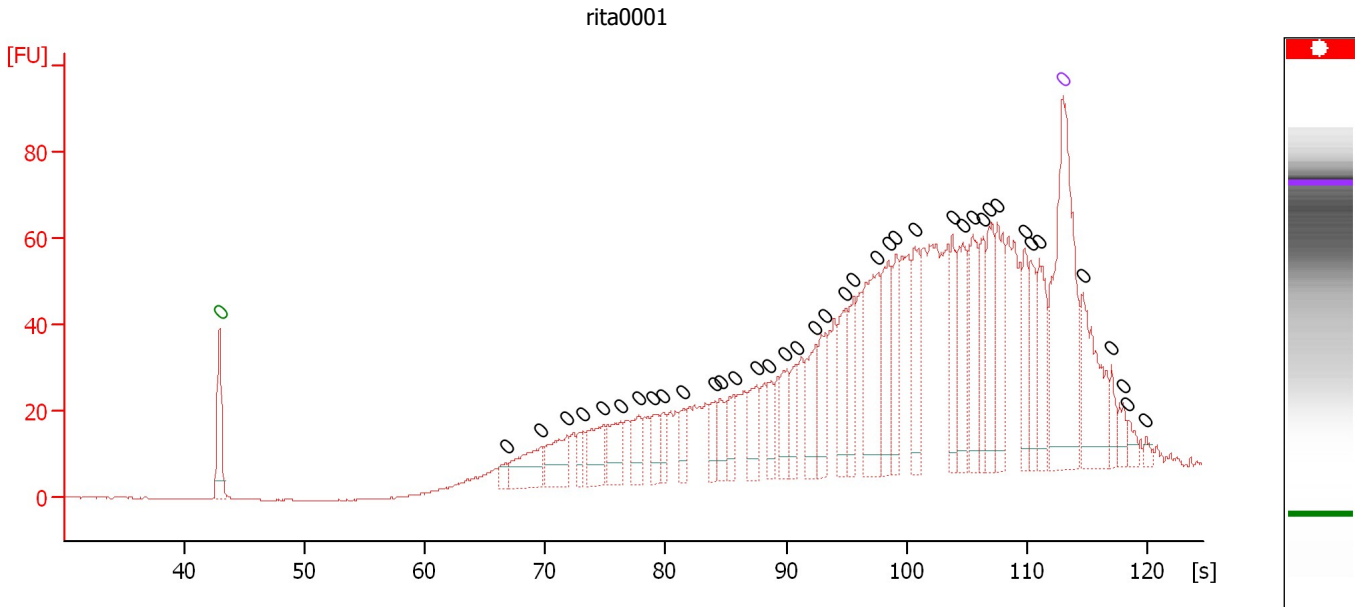
Peak table for sample 3 : rian0001

| Peak | Size [bp] | Conc. [pg/ μ l] | Molarity [pmol/l] | Observations |
|------|-----------|---------------------|-------------------|--------------|
| 1 | 0 | 0.00 | 0.0 | |

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-22\2013-03-22_001.xad

Created: 3/22/2013 10:24:22 AM
 Modified: 3/22/2013 11:05:44 AM

Electropherogram Summary Continued ...



Overall Results for sample 4 : rita0001

Number of peaks found: 39 Noise: 0.1


Peak table for sample 4 : rita0001

| Peak | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations |
|------|-----------|---------------|-------------------|--------------|
| 1 | 0 | 0.00 | 0.0 | Lower Marker |
| 2 | 0 | 0.00 | 0.0 | |
| 3 | 0 | 0.00 | 0.0 | |
| 4 | 0 | 0.00 | 0.0 | |
| 5 | 0 | 0.00 | 0.0 | |
| 6 | 0 | 0.00 | 0.0 | |
| 7 | 0 | 0.00 | 0.0 | |
| 8 | 0 | 0.00 | 0.0 | |
| 9 | 0 | 0.00 | 0.0 | |
| 10 | 0 | 0.00 | 0.0 | |
| 11 | 0 | 0.00 | 0.0 | |
| 12 | 0 | 0.00 | 0.0 | |
| 13 | 0 | 0.00 | 0.0 | |
| 14 | 0 | 0.00 | 0.0 | |
| 15 | 0 | 0.00 | 0.0 | |
| 16 | 0 | 0.00 | 0.0 | |
| 17 | 0 | 0.00 | 0.0 | |
| 18 | 0 | 0.00 | 0.0 | |
| 19 | 0 | 0.00 | 0.0 | |
| 20 | 0 | 0.00 | 0.0 | |
| 21 | 0 | 0.00 | 0.0 | |
| 22 | 0 | 0.00 | 0.0 | |
| 23 | 0 | 0.00 | 0.0 | |
| 24 | 0 | 0.00 | 0.0 | |
| 25 | 0 | 0.00 | 0.0 | |
| 26 | 0 | 0.00 | 0.0 | |
| 27 | 0 | 0.00 | 0.0 | |

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-22\2013-03-22_001.xad

Created: 3/22/2013 10:24:22 AM
Modified: 3/22/2013 11:05:44 AM

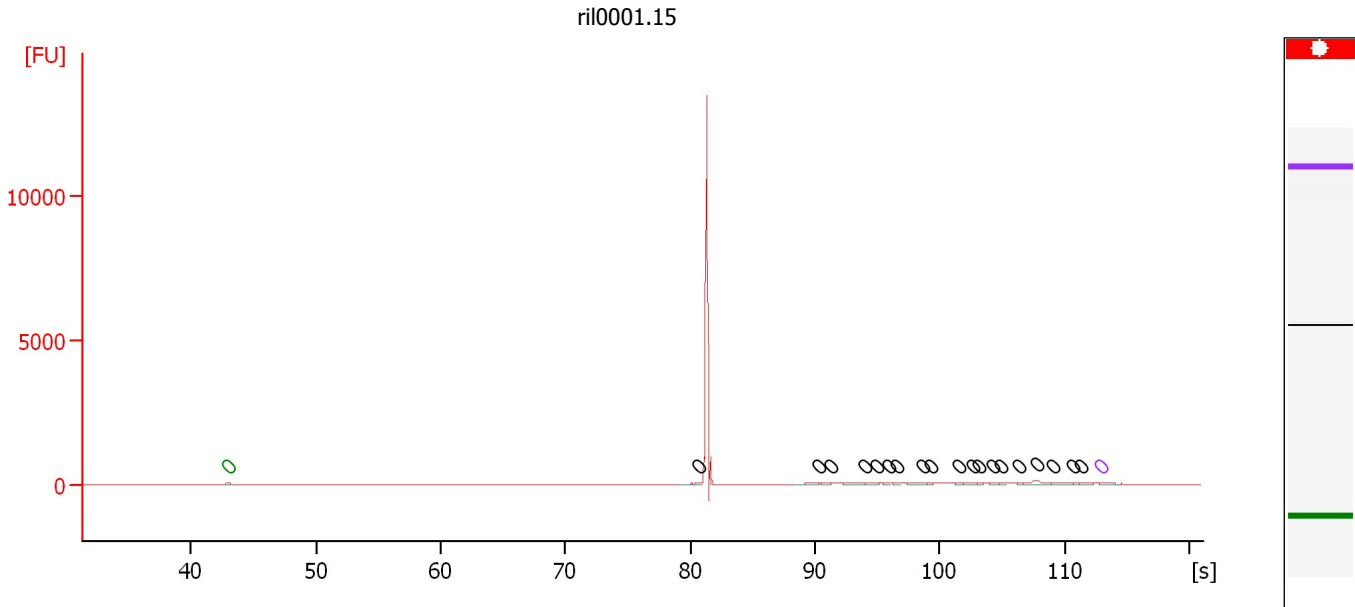
Electropherogram Summary Continued ...**... Peak table for sample 4 : rita0001**

| Peak | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations |
|------|---|---------------|-------------------|--------------|
| 28 | 0 | 0.00 | 0.0 | |
| 29 | 0 | 0.00 | 0.0 | |
| 30 | 0 | 0.00 | 0.0 | |
| 31 | 0 | 0.00 | 0.0 | |
| 32 | 0 | 0.00 | 0.0 | |
| 33 | 0 | 0.00 | 0.0 | |
| 34 | 0 | 0.00 | 0.0 | |
| 35 | 0 | 0.00 | 0.0 | |
| 36 |  0 | 0.00 | 0.0 | Upper Marker |
| 37 | 0 | 0.00 | 0.0 | |
| 38 | 0 | 0.00 | 0.0 | |
| 39 | 0 | 0.00 | 0.0 | |
| 40 | 0 | 0.00 | 0.0 | |
| 41 | 0 | 0.00 | 0.0 | |

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-22\2013-03-22_001.xad

Created: 3/22/2013 10:24:22 AM
 Modified: 3/22/2013 11:05:44 AM

Electropherogram Summary Continued ...



Overall Results for sample 5 : riI0001.15

Number of peaks found: 19 Noise: 0.7

Peak table for sample 5 : riI0001.15

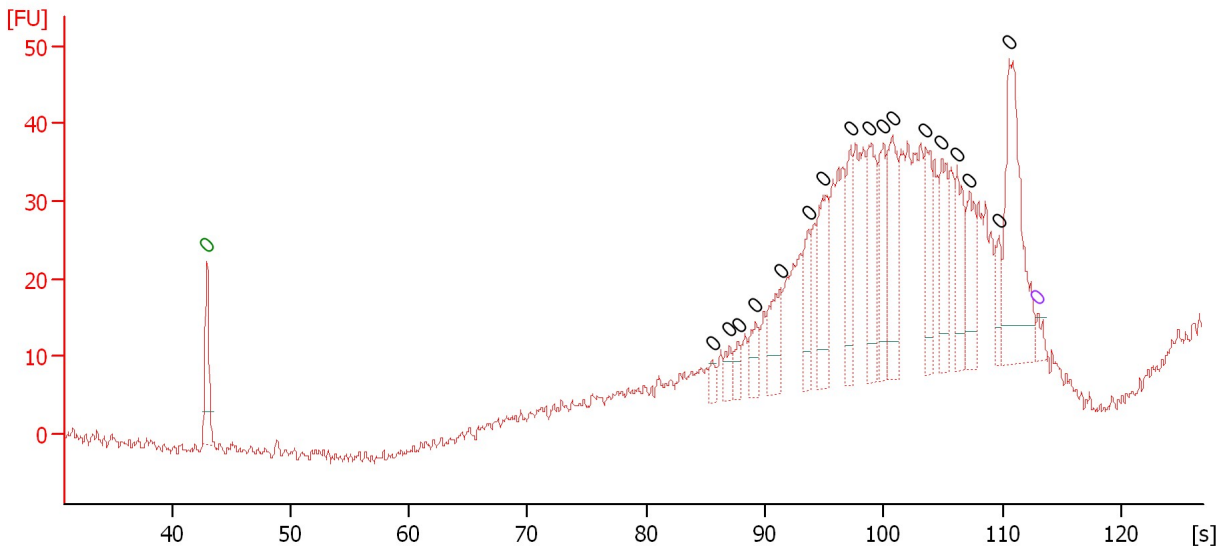
| Peak | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations |
|------|-----------|---------------|-------------------|--------------|
| 1 | 0 | 0.00 | 0.0 | Lower Marker |
| 2 | 0 | 0.00 | 0.0 | |
| 3 | 0 | 0.00 | 0.0 | |
| 4 | 0 | 0.00 | 0.0 | |
| 5 | 0 | 0.00 | 0.0 | |
| 6 | 0 | 0.00 | 0.0 | |
| 7 | 0 | 0.00 | 0.0 | |
| 8 | 0 | 0.00 | 0.0 | |
| 9 | 0 | 0.00 | 0.0 | |
| 10 | 0 | 0.00 | 0.0 | |
| 11 | 0 | 0.00 | 0.0 | |
| 12 | 0 | 0.00 | 0.0 | |
| 13 | 0 | 0.00 | 0.0 | |
| 14 | 0 | 0.00 | 0.0 | |
| 15 | 0 | 0.00 | 0.0 | |
| 16 | 0 | 0.00 | 0.0 | |
| 17 | 0 | 0.00 | 0.0 | |
| 18 | 0 | 0.00 | 0.0 | |
| 19 | 0 | 0.00 | 0.0 | |
| 20 | 0 | 0.00 | 0.0 | |
| 21 | 0 | 0.00 | 0.0 | Upper Marker |

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-22\2013-03-22_001.xad

Created: 3/22/2013 10:24:22 AM
 Modified: 3/22/2013 11:05:44 AM

Electropherogram Summary Continued ...

rimma0015.2



Overall Results for sample 6 : rimma0015.2

Number of peaks found: 17 Noise: 0.8

Peak table for sample 6 : rimma0015.2

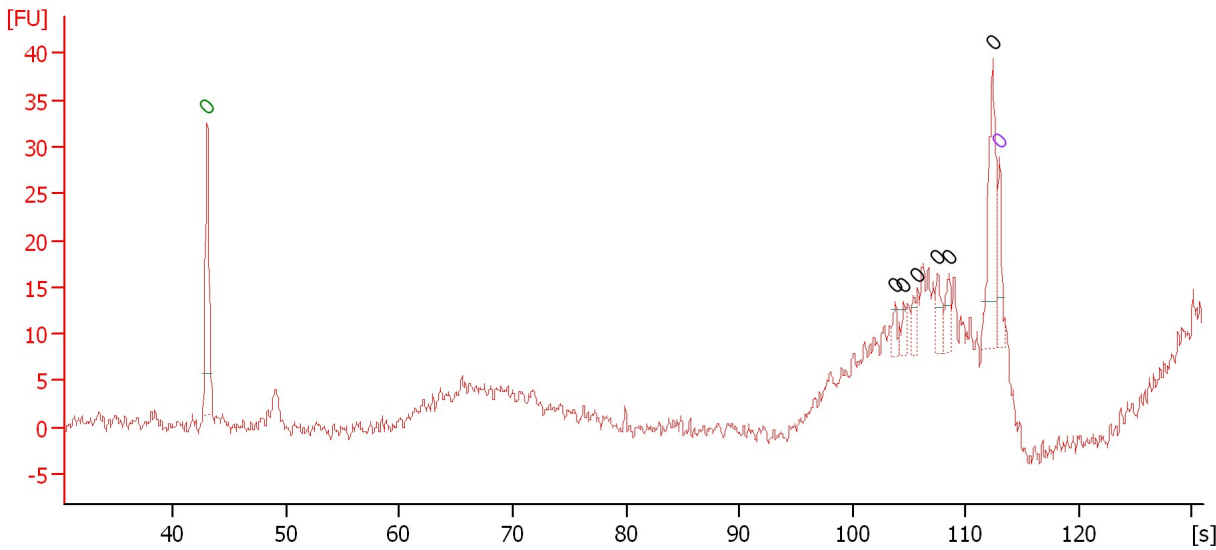
| Peak | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations |
|------|-----------|---------------|-------------------|--------------|
| 1 | 0 | 0.00 | 0.0 | Lower Marker |
| 2 | 0 | 0.00 | 0.0 | |
| 3 | 0 | 0.00 | 0.0 | |
| 4 | 0 | 0.00 | 0.0 | |
| 5 | 0 | 0.00 | 0.0 | |
| 6 | 0 | 0.00 | 0.0 | |
| 7 | 0 | 0.00 | 0.0 | |
| 8 | 0 | 0.00 | 0.0 | |
| 9 | 0 | 0.00 | 0.0 | |
| 10 | 0 | 0.00 | 0.0 | |
| 11 | 0 | 0.00 | 0.0 | |
| 12 | 0 | 0.00 | 0.0 | |
| 13 | 0 | 0.00 | 0.0 | |
| 14 | 0 | 0.00 | 0.0 | |
| 15 | 0 | 0.00 | 0.0 | |
| 16 | 0 | 0.00 | 0.0 | |
| 17 | 0 | 0.00 | 0.0 | |
| 18 | 0 | 0.00 | 0.0 | |
| 19 | 0 | 0.00 | 0.0 | Upper Marker |

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-22\2013-03-22_001.xad

Created: 3/22/2013 10:24:22 AM
 Modified: 3/22/2013 11:05:44 AM

Electropherogram Summary Continued ...

rimpa0158c19.2



Overall Results for sample 7 : rimpa0158c19.2

Number of peaks found: 6 Noise: 0.9

Peak table for sample 7 : rimpa0158c19.2

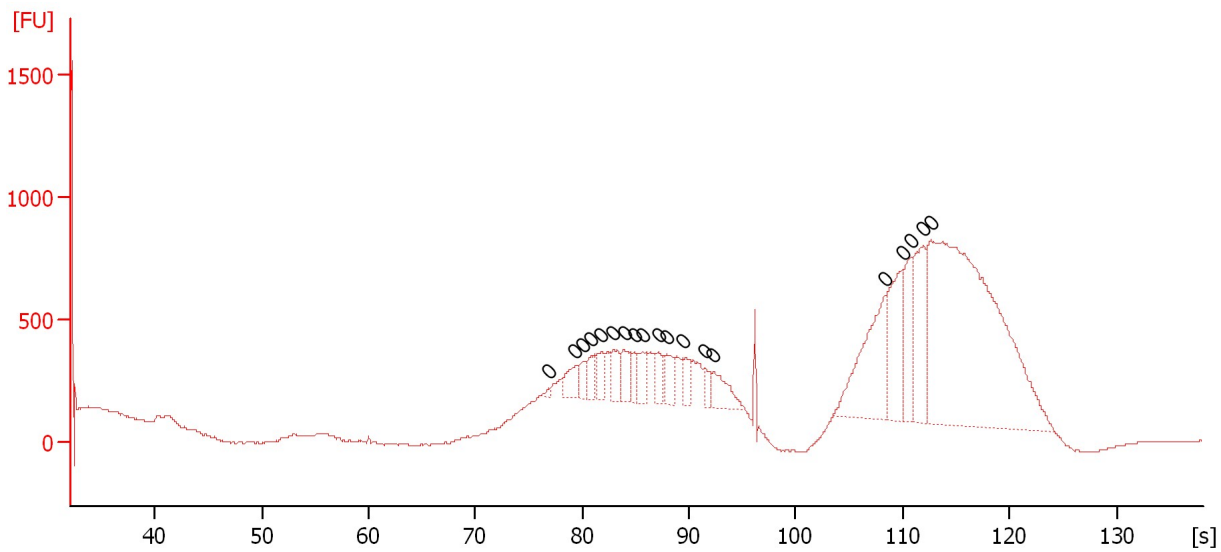
| Peak | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations |
|------|-----------|---------------|-------------------|--------------|
| 1 | 0 | 0.00 | 0.0 | Lower Marker |
| 2 | 0 | 0.00 | 0.0 | |
| 3 | 0 | 0.00 | 0.0 | |
| 4 | 0 | 0.00 | 0.0 | |
| 5 | 0 | 0.00 | 0.0 | |
| 6 | 0 | 0.00 | 0.0 | |
| 7 | 0 | 0.00 | 0.0 | |
| 8 | 0 | 0.00 | 0.0 | Upper Marker |

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-22\2013-03-22_001.xad

Created: 3/22/2013 10:24:22 AM
 Modified: 3/22/2013 11:05:44 AM

Electropherogram Summary Continued ...

rimpa0158c19.2 prenr



Overall Results for sample 8 : rimpa0158c19.2 prenr

Number of peaks found: 0 Noise: 1.2

Peak table for sample 8 : rimpa0158c19.2 prenr

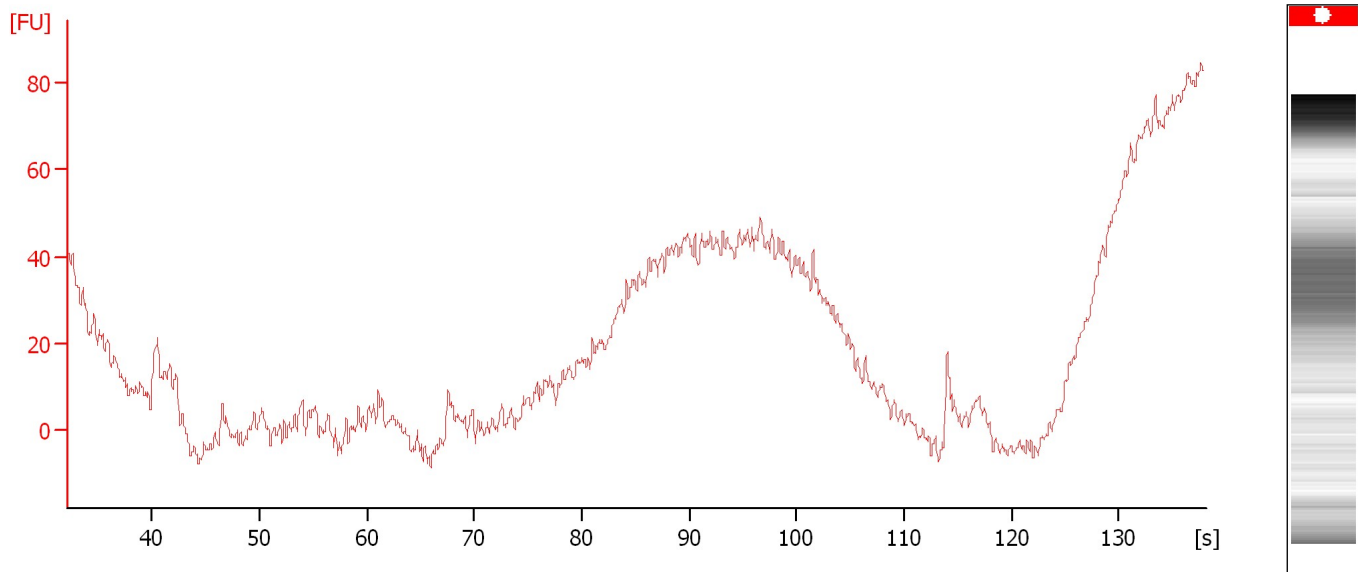
| Peak | Size [bp] | Conc. [pg/µl] | Molarity [pmol/l] | Observations |
|------|-----------|---------------|-------------------|--------------|
| 1 | 0 | 0.00 | 0.0 | |
| 2 | 0 | 0.00 | 0.0 | |
| 3 | 0 | 0.00 | 0.0 | |
| 4 | 0 | 0.00 | 0.0 | |
| 5 | 0 | 0.00 | 0.0 | |
| 6 | 0 | 0.00 | 0.0 | |
| 7 | 0 | 0.00 | 0.0 | |
| 8 | 0 | 0.00 | 0.0 | |
| 9 | 0 | 0.00 | 0.0 | |
| 10 | 0 | 0.00 | 0.0 | |
| 11 | 0 | 0.00 | 0.0 | |
| 12 | 0 | 0.00 | 0.0 | |
| 13 | 0 | 0.00 | 0.0 | |
| 14 | 0 | 0.00 | 0.0 | |
| 15 | 0 | 0.00 | 0.0 | |
| 16 | 0 | 0.00 | 0.0 | |
| 17 | 0 | 0.00 | 0.0 | |
| 18 | 0 | 0.00 | 0.0 | |
| 19 | 0 | 0.00 | 0.0 | |

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-22\2013-03-22_001.xad

Created: 3/22/2013 10:24:22 AM
Modified: 3/22/2013 11:05:44 AM

Electropherogram Summary Continued ...

rimpa0158c7.2



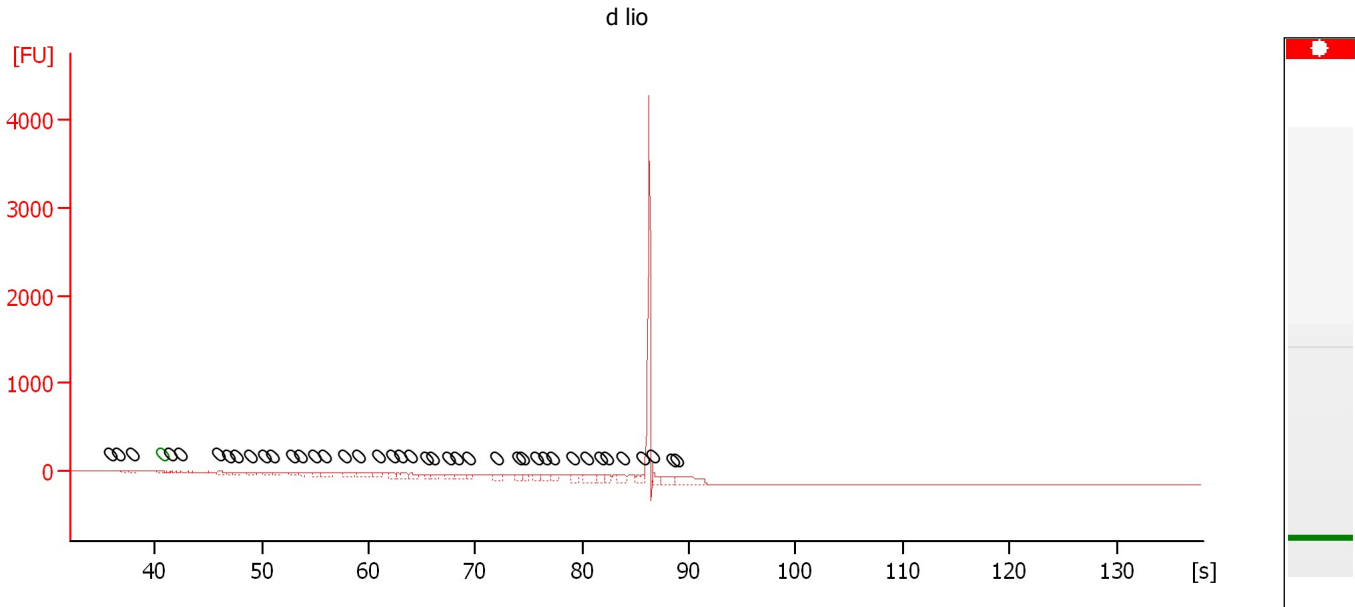
Overall Results for sample 9 : rimpa0158c7.2

Noise: 3.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-22\2013-03-22_001.xad

Created: 3/22/2013 10:24:22 AM
 Modified: 3/22/2013 11:05:44 AM

Electropherogram Summary Continued ...



Overall Results for sample 10 : d lio

Number of peaks found: 41 Noise: 0.0

Peak table for sample 10 : d lio

| Peak | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations |
|------|-----------|---------------|-------------------|--------------|
| 1 | 0 | 0.00 | 0.0 | |
| 2 | 0 | 0.00 | 0.0 | |
| 3 | 0 | 0.00 | 0.0 | |
| 4 | 0 | 0.00 | 0.0 | Lower Marker |
| 5 | 0 | 0.00 | 0.0 | |
| 6 | 0 | 0.00 | 0.0 | |
| 7 | 0 | 0.00 | 0.0 | |
| 8 | 0 | 0.00 | 0.0 | |
| 9 | 0 | 0.00 | 0.0 | |
| 10 | 0 | 0.00 | 0.0 | |
| 11 | 0 | 0.00 | 0.0 | |
| 12 | 0 | 0.00 | 0.0 | |
| 13 | 0 | 0.00 | 0.0 | |
| 14 | 0 | 0.00 | 0.0 | |
| 15 | 0 | 0.00 | 0.0 | |
| 16 | 0 | 0.00 | 0.0 | |
| 17 | 0 | 0.00 | 0.0 | |
| 18 | 0 | 0.00 | 0.0 | |
| 19 | 0 | 0.00 | 0.0 | |
| 20 | 0 | 0.00 | 0.0 | |
| 21 | 0 | 0.00 | 0.0 | |
| 22 | 0 | 0.00 | 0.0 | |
| 23 | 0 | 0.00 | 0.0 | |
| 24 | 0 | 0.00 | 0.0 | |
| 25 | 0 | 0.00 | 0.0 | |
| 26 | 0 | 0.00 | 0.0 | |
| 27 | 0 | 0.00 | 0.0 | |

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-22\2013-03-22_001.xad

Created: 3/22/2013 10:24:22 AM
Modified: 3/22/2013 11:05:44 AM

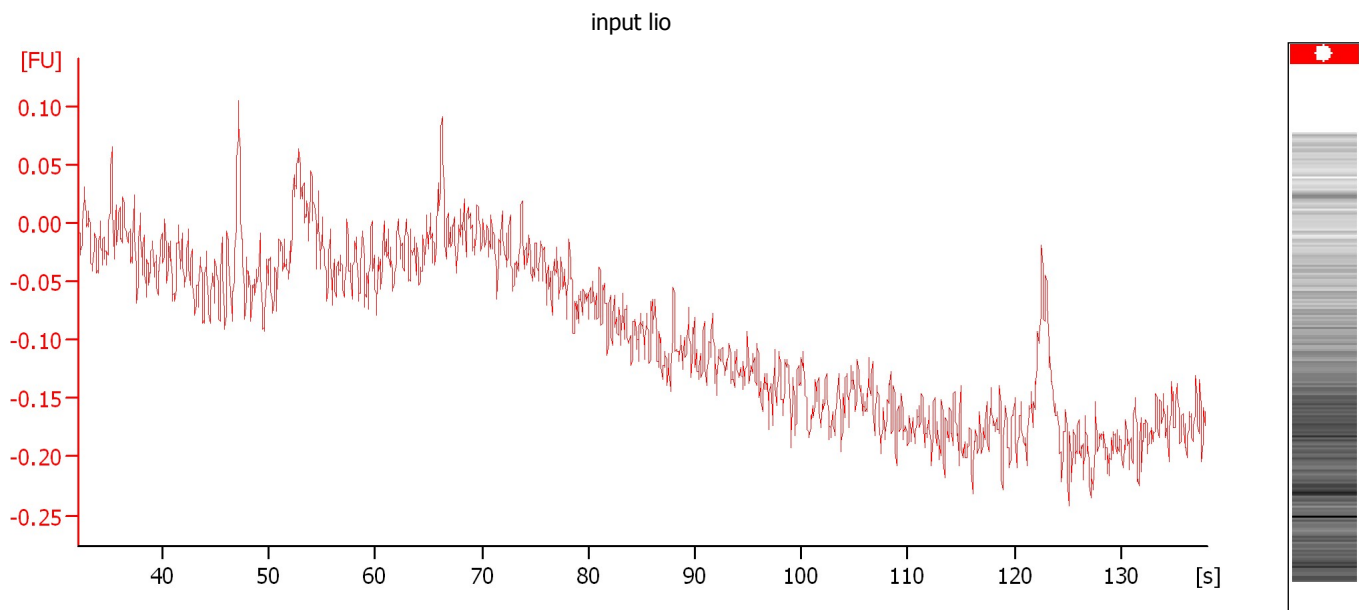
Electropherogram Summary Continued ...**... Peak table for sample 10 : d lio**

| Peak | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations |
|------|-----------|---------------|-------------------|--------------|
| 28 | 0 | 0.00 | 0.0 | |
| 29 | 0 | 0.00 | 0.0 | |
| 30 | 0 | 0.00 | 0.0 | |
| 31 | 0 | 0.00 | 0.0 | |
| 32 | 0 | 0.00 | 0.0 | |
| 33 | 0 | 0.00 | 0.0 | |
| 34 | 0 | 0.00 | 0.0 | |
| 35 | 0 | 0.00 | 0.0 | |
| 36 | 0 | 0.00 | 0.0 | |
| 37 | 0 | 0.00 | 0.0 | |
| 38 | 0 | 0.00 | 0.0 | |
| 39 | 0 | 0.00 | 0.0 | |
| 40 | 0 | 0.00 | 0.0 | |
| 41 | 0 | 0.00 | 0.0 | |
| 42 | 0 | 0.00 | 0.0 | |

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-22\2013-03-22_001.xad

Created: 3/22/2013 10:24:22 AM
Modified: 3/22/2013 11:05:44 AM

Electropherogram Summary Continued ...



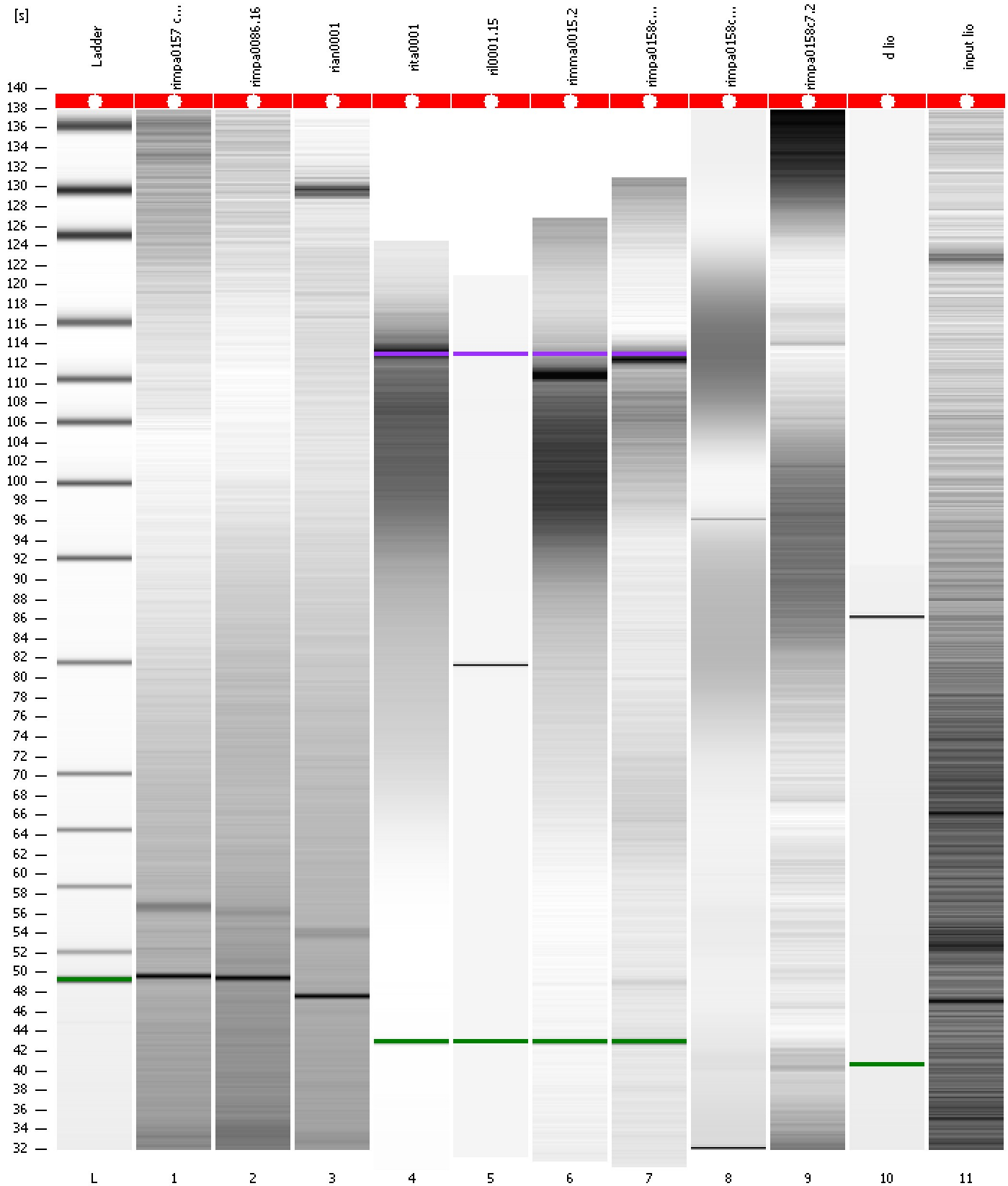
Overall Results for sample 11 : input lio

Noise: 0.0

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-22\2013-03-22_001.xad

Created: 3/22/2013 10:24:22 AM
Modified: 3/22/2013 11:05:44 AM

Gel Image



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-22\2013-03-22_001.xad

Created: 3/22/2013 10:24:22 AM
 Modified: 3/22/2013 11:05:44 AM

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 | | 3/22/2013 11:05:40 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Instrument error occurred on port 1, Optical signal too high (1605h) | 559 | Instrument | Run | Sample 10 | 3/22/2013 11:01:45 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Instrument error occurred on port 1, Optical signal too high (1605h) | 559 | Instrument | Run | Sample 5 | 3/22/2013 10:47:53 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2013-03-22\2013-03-22_001.xad) | | Instrument | Run | | 3/22/2013 10:24:27 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Product Number : G2938B | | Instrument | Run | | 3/22/2013 10:24:27 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Name : | | Instrument | Run | | 3/22/2013 10:24:27 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Vendor : Agilent Technologies | | Instrument | Run | | 3/22/2013 10:24:27 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Serial# : DE13701086 | | Instrument | Run | | 3/22/2013 10:24:27 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Firmware : C.01.069 | | Instrument | Run | | 3/22/2013 10:24:27 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Cartridge : Electrode | | Instrument | Run | | 3/22/2013 10:24:27 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |