Agilent Bioanalyzer Analysis

RNA and DNA quality is one of the major factors affecting the outcome of a microarray and sequencing experiments. The Agilent 2100 Bioanalyzer is a microfluidics-based platform for the analysis of DNA, RNA, and proteins. It has become a viable alternative to gel electrophoresis techniques. It delivers fast, automated, high quality digital data using a minimal amount of template.

<table>
<thead>
<tr>
<th>Chip Type</th>
<th>Volume Needed</th>
<th>Concentration Required</th>
<th># Samples per Chip</th>
</tr>
</thead>
<tbody>
<tr>
<td>RNA Pico</td>
<td>2-4ul</td>
<td>1-5ng/ul</td>
<td>11</td>
</tr>
<tr>
<td>RNA Nano</td>
<td>2-4ul</td>
<td>50-500ng/ul</td>
<td>12</td>
</tr>
<tr>
<td>High Sensitivity DNA</td>
<td>2-4ul</td>
<td>1ng/ul</td>
<td>11</td>
</tr>
<tr>
<td>DNA 7500</td>
<td>2-4ul</td>
<td>0.1-50ng/ul</td>
<td>12</td>
</tr>
</tbody>
</table>

For pricing, please see our Pricing Page (link: http://www.biotech.uiuc.edu/functionalgenomics/pricing)

Submissions:

-We recommend samples be submitted in individual tubes, with each tube labeled with sample name and PI’s initials.

-Samples should be submitted in water or TE buffer. Contaminants of any kind, including salts, organic compounds, metals, or dust, will interfere with the results.
-Submission form must be completed and dropped off with samples (submission form) OR sent by email (see contacts). If you are submitting the form by email, please have your PI send an email confirming the account number.

-Please contact the lab before bringing your samples so we can ensure that they are placed immediately into the -80C freezer.

-Samples must be brought to the lab on ice or dry ice.

**Results:**

- The Bioanalyzer program will generate data concerning the integrity of your samples. Your results will include electropherograms and gel-like images, as well as a ribosomal ratio.

- The results will also show a concentration, however, we recommend using the Nanodrop or Qubit for the most accurate concentration results.

- Results include an RNA Integrity Number (RIN). Definition and explanation can be found here: [RIN_Mueller, Lightfoot & Schroeder reference](#).

**FAQs:**

Q: How long will it take to get my results?

A: The normal turnaround time is 1-2 business days.

Q: What is the lowest RIN acceptable for microarray experiments?

A: We recommend that the RIN be at least 7. However, we have obtained acceptable results with RINs as low as 6.7.

Q: I have less than 12 samples (for nano) or 11 samples (for pico). Do I have to pay for a whole chip?

A: We are willing to store your samples for a short period of time at -80C. Should another PI submit less than the maximum number of samples during this time, we will run your samples on the same chip and split the cost.

**Contacts:**

- Please contact Mary Majewski (mmajewsk@illinois.edu) with any additional questions.

- Lab address/shipping information:
University of Illinois
356 Edward R. Madigan Laboratory
1201 W. Gregory Dr.
Urbana, IL 61801

-Phone number:
217-244-3929

For further information and service fees, contact: Mary Majewski or Mark Band in the Functional Genomics Lab at (217)244-3929