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.



	Volume	Concentration	
Chip Type	Needed	Required	# Samples per Chip
RNA Pico	2-4ul	1-5ng/ul	11
RNA Nano	2-4ul	50-500ng/ul	12
High Sensitivity			
DNA	2-4ul	1ng/ul	11
DNA 7500	2-4ul	0.1-50ng/ul	12

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 (<u>submission form</u>) 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: <u>RIN_Mueller, Lightfoot & Schroeder reference[1]</u>.

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 (<u>mmajewsk@illinois.edu</u>) 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