

Microarray Sample Submission Form for Use with Agilent Arrays

This form must be included with all samples submitted to the NMG

Project Information

Principal Investigator Name:

OSD / EBP / EDMP / ETP (*please circle one*)

Project Number (from project approval letter):

Project (proposal) Title:

Contact Name:

Email Address & Phone Number:

List genes of interest for this experiment:

Please describe other biological parameters of special note for your samples on a separate sheet of paper if necessary (i.e. cell survival data, cell proliferation or toxicity data, cell cycle state, etc.).

Sample Submission Requirements

Please check boxes as criteria are met, samples will be returned if all criteria are not satisfied.

- Minimum submission of 10 µg total RNA at a concentration of 0.5-1 µg/µl. If you are unable to meet this requirement, permission to submit samples differing from this may be obtained from NMG staff. Please email Sherry Grissom (grissom2@niehs.nih.gov) for details.
- OD 260/280 absorbance ratio of 1.7-2.1, quantitated using the NMG RNA quantitation protocol. Please see website for current protocols: <http://dir.niehs.nih.gov/microarray/>
- A 5 µl sample RNA at a concentration of ~200 ng/µl of each RNA sample submitted for RNA quality check on the Agilent Bioanalyzer.
- Submission must be accompanied by an **original** gel image (clearly labeled and easily distinguishable) with 1-5 µg/lane of RNA. Greater than 50% of EtBr stained material must be 28S and 18S bands. Please see protocols at the above website if help in running this gel is needed.
- Screw-cap tubes (with O-ring) neatly labeled with sample name, date, RNA concentration and submitter's initials.
 - Please provide unambiguous names for RNA (no 3-letter codes and no numbering). If we find that the annotations are confusing, we will return this form for further clarification.
 - Please avoid using sticker labels unless they are approved for use at -80°C.
- Completion of **ALL** tables in this form and delivery of samples on dry ice to D226.

RNA Preparation Information

Tube #	RNA Name	RNA Type (tissue, cell line, be specific)	Prep Date & Preparer	Prep Procedure
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

RNA Sample Information

Tube #	OD 260/280	Concentration ($\mu\text{g}/\mu\text{l}$)	Total Volume	Total Amount	5 μl sample (\checkmark)
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

Experiment Design and Comparison Information

(This section is constrained to the number of chips you were allotted in the project approval letter, since the NMG performs hybridizations in duplicate, you must divide this number by 2 to obtain the total number of comparisons you are allowed to make)

Comparison #	RNA Name		RNA Name
1		Compare To	
2		Compare To	
3		Compare To	
4		Compare To	
5		Compare To	
6		Compare To	
7		Compare To	
8		Compare To	
9		Compare To	
10		Compare To	

Experimental Information

Tube #	RNA Name	Agent Type (hormone, steroid, knockout, etc.)	Agent (please include CAS # if available)	Dose (with units)	Time (with units)
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

Experimental Platform

Please indicate by checking which platform you would like to have your comparison performed on:

- Agilent Human 1A Oligo
- Agilent Mouse Oligo (also known as Mouse Tox)
- Agilent Mouse Development Oligo
- Agilent Rat Tox Oligo
- Agilent Yeast Oligo
- Other (please specify):

After RNA prep, sample quantitation and form completion, please bring the samples to the NMG facilities located in D218-D230. Ask for Sherry Grissom (541-0747) or Danica Ducharme (541-2595).

Information to be Entered by NMG Staff

- * Received by (initials): _____
- * Date Received: _____
- * Location: _____

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Instructions

Please note that if form is not filled out completely and according to instructions, the samples and submission form will be returned until all is complete and correct.

1. Name and Contact Information:

- a. Please fill out with the **Principal** Investigators name, along with the submitting persons contact information. Also indicate the Program you are associated with in DIR.
- b. Include the entire Proposal Title and the number assigned it in your acceptance letter. This information is referenced in the letter/email sent to you from the NMG acknowledging acceptance of proposal.
- c. List anything else that may be pertinent to your individual project.

2. Requirements for Submission:

- a. Minimum concentrations of RNA are listed for reasons pertaining to the labeling protocols. Small deviations from these are acceptable, though please ask us before submitting samples under the required concentrations and amounts.
- b. Agilent Bioanalyzer samples are requested to check the RNA integrity before running the microarray experiments. These results, in combination with gel images, are used to determine if the samples meet microarray specifications for pure, non-degraded uncontaminated RNA.
- c. An **original** gel image of the total RNA should also accompany your microarray and bioanalyzer samples. It is very hard to learn things from photocopied gels.
- d. Because of the number of samples received and the current way of storing them, screw-cap tubes are a necessity. Please be sure that these are labeled appropriately with sample name and investigator name, if you plan to use stickers, please make sure that they are appropriate for storage at -80°C .
- e. As stated above, if all these requirements are not met, the samples will be returned.

3. RNA Information Tables

- a. Please assign RNA names so that they give the Microarray Personnel an idea of what the sample contains. Please do not number 1, 2, 3, etc.
- b. RNA type will be either a cell culture line or type of tissue the RNA was isolated from, please specify name of tissue or cell line (be as specific as possible).
- c. Please specify the exact prep date (MM/DD/YYYY) and the preparer's name (initials will suffice if preparer and contact person are the same).
- d. Let us know what RNA extraction method you used.

- e. Please also specifics on quality metrics (OD) and quantity and check that a dilution has been made for the sample to be analyzed on the Bioanalyzer as specified in the Submission Requirements.

4. Experiment Design, Comparison and Experiment Information

- a. Please note that the number of comparisons possible is equal to the number of chips approved for divided by 2. This is because the NMG performs 2 chips per comparison as technical replicates.
- b. For the experiment information, please let us know what treatment is given, in what dosage, for how long. If your experiment is not necessarily a "treatment" (i.e. either knockout mouse or cell line), please try to give us information about the subject, such as what is being knocked out or over-expressed.

5. Contact Information: Below is the contact information for some of the people in the NMG who support DIR projects. Please feel free to contact any of us for information regarding your RNA samples and submission.

- **Jennifer Collins**
 - 541-7798
 - D226 (back)
 - Data Analysis/General Info
 - collins6@niehs.nih.gov

- **Danica Ducharme**
 - 541-2595
 - D228
 - Labeling/Hybridization
 - ducharme@niehs.nih.gov

- **Rick Fannin**
 - 541-0992
 - D218B
 - RNA Preparation
 - fannin@niehs.nih.gov

- **Sherry Grissom**
 - 541-0747
 - D226 (front)
 - Labeling/Hybridization/**RNA Submission**
 - grissom2@niehs.nih.gov

- **Stella Sieber**
 - 541-2179
 - D218B
 - RNA Preparation
 - sieber@niehs.nih.gov