



## 1. PURPOSE

To provide a protocol for the correct submission of DNA samples to the Molecular Diagnostic Core Facility for analysis on the ABI 7900HT Sequence Detection System

## 2. MATERIALS

	Vendor	Catalog Number
2.1. QIAGEN kit	QIAGEN	51104
2.2. Puregene kit	Gentra	
2.3. 96 deep-well plate	Marsh Bioproducts	AB-0859
2.4. Microseal F Foil	MJ Research	MSF -1001
2.5. Sealing Roller	MJ Research	MSR-0001

## 3. ATTACHMENTS

- 3.1. DNA Submission Form v1-General Information Tab
- 3.2. DNA Submission Form v1-Sample Information Tab
- 3.3. DNA Submission Form v1-SNP and Primer Information Tab

## 4. PROTOCOL

### 4.1. DNA Submission

- 4.1.1. Extract DNA samples using QIAGEN or Puregene kit.
- 4.1.2. Measure the OD for each sample. (The 260/280 ratio for each should range between 1.6 and 2.0 for good quality DNA.)
- 4.1.3. Use the concentrations obtained by the OD to dilute the DNA to 1 ng/ $\mu$ L with a total volume of 300  $\mu$ L
- 4.1.4. Aliquot the 1 ng/ $\mu$ L DNA samples into individual wells of the 96 deep-well plate.
  - 4.1.4.1. Track which Sample Ids are aliquotted into which wells.

**NOTE: Leave the H12 well of each 96 deep-well plate empty.  
This well will be used as a control by the Core.**

- 4.1.5. Seal the plates using Microseal F foil and a sealing roller.



- 4.1.6. Group the plates in sets of four and wrap with plastic sealing wrap.
- 4.1.7. Store the plates at 4°C.
- 4.1.8. Obtain a DNA Submission Form v1 (Attachments 1, 2, and 3) from the Core by emailing Kathakali Addya ([addya@mail.med.upenn.edu](mailto:addya@mail.med.upenn.edu)).
  - 4.1.8.1. Open the DNA Submission Form v1. The document is Read Only, so click OK to open the document as Read Only. Save the document immediately under another name of your choice.
  - 4.1.8.2. Fill out the DNA Submission Form v1-General Information Tab (Attachment 1) in Excel. Save the document and print the General Information tab.
  - 4.1.8.3. Fill out the DNA Submission Form v1-Sample Information Tab (Attachment 2) in Excel. The worksheet lists the wells of a 96-well plate (A1, A2, etc.); type the sample name next to the well where it was aliquotted. Continue to fill in the sample identifiers until you have listed all the samples that were aliquotted into the 96 well plates.

**NOTE: The Sample Information Tab allows the entry of 95 samples. If there are more than 95 to be entered, copy the template grid and paste below the H12 row until you have enough rows for the amount of samples.**
  - 4.1.8.4. Save the document again and email to Kathakali ([addya@mail.med.upenn.edu](mailto:addya@mail.med.upenn.edu)).

## 4.2. Sample Delivery

- 4.2.1. Place the plates in boxes for delivery.
- 4.2.2. Deliver the samples to the Core with a copy of the DNA Submission Form v1-General Information tab.
- 4.2.3. Allow the Molecular Diagnosis and Genotyping Facility technician to check the condition of the plates before signing and dating the Submission Form. The technician will copy the signed form and return it to you for your records.



*Molecular Diagnosis and Genotyping Facility Protocol*    *Version:*

*Protocol 1: Submitting DNA Samples to the  
Molecular Diagnosis and Genotyping Facility for  
ABI7900 HT Allelic Discrimination*

*Date Approved:*

**ATTACHMENT 1: DNA Submission Form v1-General Information**

Molecular Diagnosis and Genotyping Facility

University of Pennsylvania Cancer Center

ABI 7900HT SNP Genotyping Sample Submission Form

Investigator:

Submission Form Saved as:

MDGF Staff-Please fill in

Date of Sample Shipment:

Initials on Receipt:

Number of Plates:

Number of Samples:

Grant Number:

Address:

Phone:

Email:

Additional Contacts:

Name

Email

<input type="text"/>	<input type="text"/>
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Tentative Deadline:

Brief Summary of Study:

*Molecular Diagnosis and Genotyping Facility  
University of Pennsylvania Cancer Center  
Protocol Established February 2003*



**ATTACHMENT 2: DNA Submission Form v1-Sample Information**

Investigator

Date

Number of Samples

Plate #	Well	Specimen ID
	A1	
	A2	
	A3	
	A4	
	A5	
	A6	
	A7	
	A8	
	A9	
	A10	
	A11	
	A12	
	B1	
	B2	
	B3	
	B4	
	B5	
	B6	
	B7	
	B8	
	B9	
	B10	
	B11	
	B12	
	C1	
	C2	
	C3	
	C4	
	C5	
	C6	
	C7	
	C8	
	C9	
	C10	
	C11	
	C12	
	D1	
	D2	
	D3	
	D4	
	D5	
	D6	
	D7	
	D8	
	D9	
	D10	
	D11	
	D12	

	E1	
	E2	
	E3	
	E4	
	E5	
	E6	
	E7	
	E8	
	E9	
	E10	
	E11	
	E12	
	F1	
	F2	
	F3	
	F4	
	F5	
	F6	
	F7	
	F8	
	F9	
	F10	
	F11	
	F12	
	G1	
	G2	
	G3	
	G4	
	G5	
	G6	
	G7	
	G8	
	G9	
	G10	
	G11	
	G12	
	H1	
	H2	
	H3	
	H4	
	H5	
	H6	
	H7	
	H8	
	H9	
	H10	
	H11	
	H12	