

Dolan DNA Learning Center

Preparing students and families to thrive in the gene age

Cold Spring Harbor Laboratory
1 Bungtown Road
Cold Spring Harbor, NY 11724-0100
(516) 367-5170
Fax (516) 367-5182
Internet: www.dnalc.org

GENEWIZ Sample Preparation and Submission

Getting Started: GENEWIZ DNA Sequencing Services

1. Go to www.GENEWIZ.com and create a user account.
2. When creating your account, enter your institution name followed by “-DNALC” and your personal information so the invoices are sent to the correct location.
3. Obtain a valid Purchase Order number from your Purchasing department or use a valid credit card. GENEWIZ will charge \$3 per sequence. (Or \$6 per sample if you decide to sequence both strands.)

Preparing your PCR product

If you have not sequenced samples at GENEWIZ before, consult their detailed guide at:

<http://www.GENEWIZ.com/public/Sample-Submission-Guideline.aspx>

1. Verify that you have obtained PCR product of the correct length and with visible concentration on an agarose gel.
2. Prepare 8-strip tube 0.2ml PCR tubes appropriate for the number of samples you will submit. If you will be submitting a large number of samples (≥ 48), you can submit up to 94 PCR products per 96-well plate.

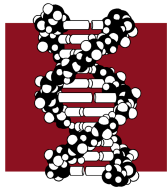
You will need to have 10 μ l of PCR product for each sequencing reaction.

Submitting a sample for sequencing

1. Log in to your user account to place your sequencing order.
2. Under sequencing priority select *standard*.
3. You can choose either the *online form* or *upload excel form*.
4. For the sample type select *custom* (If you are working on the excel form, then download the *custom form*).
5. Enter the number of samples you will be sending for sequencing. (If you elect to do bi-directional sequencing, you need to do two separate reactions per sample).

Filling out the sample form

1. Enter a sample name for each sample. This could be a number or initials, etc.
2. For DNA Type select **Un-purified PCR**.
3. For *DNA length* enter the length of your PCR product (Approx. **450 bp** for Mt DNA, for DNA barcoding; it will vary according to the protocol).
4. For *DNA concentration* it is best to send in a gel image of representative samples. This will be used by GENEWIZ to calculate the correct amount of clean-up reagents to use and the amount of product to use in the sequencing reaction. If a gel image is not supplied, GENEWIZ will use our default amount for setting up the sequencing reactions.



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5. For *Primer name* enter the following based on your protocol:

If you are doing mitochondrial DNA, enter:

LCMtF

This is the standard primer we have always used.

If you experience problems sequencing a piece of mitochondrial DNA or wish to get the reverse read, enter:

LCMtR

Remember to reverse complement the read to align it to Mt DNA sequenced with the forward primer.

If you are doing Plant DNA barcoding, enter the following to read the forward strand:

LCrbcLa

To read the reverse strand, enter:

LCrbcLa REV

6. For *Primer Concentration* enter the value **5**.
7. Under *Special request* be sure that **PCR-Clean Up** has been automatically selected (which should happen if unpurified PCR is selected as the DNA type).
8. When placing your order online, please write on the order receipt or type this into the comments section at the bottom of the order form: **“Primer stored at GENEWIZ under DNALC”**. Please be sure to use the exact name of the primer to ensure that there is no delay with the processing of your order.

*** Tip: If you are entering any value that will be the same for the entire column on the online form you can press the button above that column to fill in that value for the whole column.***

Finishing and submitting your sequencing request.

Once you have carefully reviewed your form, you can enter your payment information and submit the request. Print a copy of the form and mail it along with your sample. Be sure to label your tubes *exactly* as indicated in the photo and instructions. You are responsible for doing this correctly. Failure to do so may delay your sequencing or make it impossible to complete. Please be sure you understand these instructions or email DNALSeq@cshl.edu for help.

Shipping Instructions

Ship samples via standard overnight delivery service (FedEx if possible) to the following location: GENEWIZ, Inc. 115 Corporate Blvd. South Plainfield, NJ 07080. Shipping samples at room temperature is expected. Your PCR products will be stable (even if shipping on a Friday for Monday delivery).

Additional GENEWIZ shipping options: In some cases, based on your location, you may be able to reduce your shipping costs by using a GENEWIZ drop box if one is available in your area. Call 1-877-436-3949 for the nearest location.