

## A52. Procedure for DNA Sequencing Services by AZENTA Life Sciences

### SANGER SEQUENCING SERVICES ONLINE ORDER STEPS (pages 3-8)

- 1). Prepare Plasmid and Purified PCR Products as Instructed (see below):
  - a). **Pre-Mixed Service: Plasmid & Purified PCR (Preferred):** Provide **your template** and **your primer mixed** in the **SAME TUBE**. Refer to table for recommended concentrations and volumes (see next page).
  - b). **Pre-Defined Service: Plasmid & Purified PCR (Optional):** Submit your template(s) and primer(s) in SEPARATE TUBES or submit your template(s) and select AZENTA UNIVERSAL PRIMERS. Refer to table for recommended concentrations and volumes per reaction (see next page).
- 2). Ask TC to create a ONE-TIME Purchase Order (PO) number or Standing Purchase Order (PO) number through the FST system.
- 3). Create your account at <https://clims4.genewiz.com/> or use the MOLab login account ([tche@uchicago.edu](mailto:tche@uchicago.edu) // UCMolab@2024) (Standing PO# X0025429)
- 4). Complete the online submission process (see pages 5 to 8).
- 5). Drop your samples in **GCIS W403M** in the box with a printed copy of your order receipt before the 4PM cutoff time.

### Azenta turnaround time

- Standard orders: noon the day following order delivery at Azenta
- \*Same day: the day the order is received (by 10am) at Azenta

### Pricing Information (as of May 1, 2024)

Please see pricing below. You can also coupon code **GA20-NEW50** at checkout for \$50.00 towards your first Sanger sequencing order.

- **Pre-mixed: \$4.41 per rxn**
- **Pre-defined: \$5.51 per rxn**
- Custom: \$8.82 per rxn
- PCR clean-up: \$3.31 per rxn
- Same-day processing: FREE

**FAQ:** <https://www.genewiz.com/en/Public/Resources/FAQs/FAQs-DNA-Sequencing>

### WHOLE PLASMID SEQUENCING SERVICES (pages 9-10)

GENEWIZ by Azenta is offering whole plasmid sequencing (**Plasmid-EZ**) to verify the integrity and fidelity of whole plasmids using long-read technology. With our new end-of-year promotion, you will receive **\$10 per sample** using promo code **GA24-PLASMID-EZ10** when you place an order through your online account! There is no minimum requirement and the promo can be used multiple times through 12/31/24. The turnaround time is 24 hours, and you can conveniently submit samples through one of your local drop-boxes.

- **Price:** \$13.99 for 24+ samples, \$14.99 for 1-23 samples
  - **PROMO:** use promo code **GA24-PLASMID-EZ10** for \$10/sample through 12/31/24
  - Same rate for all plasmids, regardless of size or complexity

- **Turnaround time:** 1 business day after samples are received
- **Starting Material:** Purified plasmid DNA; minimum amount of 500ng and concentration normalized to 50 ng/ $\mu$ L.
- **Sample Submissions:** Can ship samples directly to our NJ facility, or can leave samples in your dropbox with a printed copy of your order receipt (received at checkout)
- **Deliverables:** An interactive data report, consensus sequence of your plasmid(s) in FASTA format, raw reads in FASTQ files, GenBank files, and annotation files, including plasmid map images
- **Ordering Process:** Place orders directly through your online account by selecting “NGS” and “Plasmid-EZ” and filling out your order form. I’ve attached an ordering guide for your reference.
- **FAQ Page:** [https://web.genewiz.com/ngs-plasmid-ez-faq?\\_ga=2.16424958.957779649.1730400912-1781756750.1725401839](https://web.genewiz.com/ngs-plasmid-ez-faq?_ga=2.16424958.957779649.1730400912-1781756750.1725401839)

### **Dropbox Location**

**Address:** 929 E 57th Street Chicago, IL 60637

**Location:** GCIS W403M on bench near window-please tell lab members when dropping off

**Pickup:** Mon-Fri @ 4PM

### **Account Contact:**

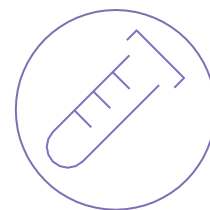
Emily Fish, MS

Account Manager – Genomic Services

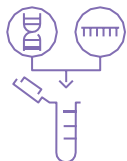
+1 763.923.1267

[Emily.Fish@azenta.com](mailto:Emily.Fish@azenta.com)

[azenta.com](http://azenta.com)



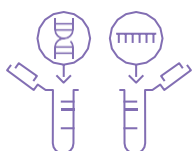
# Sample Submission Guidelines



## Pre-Mixed Service: Plasmid & Purified PCR

Provide your template and your primer mixed in the **SAME TUBE**

Refer to table for recommended concentrations and volumes.



## Pre-Defined Service: Plasmid & Purified PCR

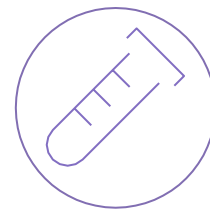
Submit your template(s) and primer(s) in **SEPERATE TUBES** or submit your template(s) and select **AZENTA UNIVERSAL PRIMERS**.

Refer to table for recommended concentrations and volumes per reaction.

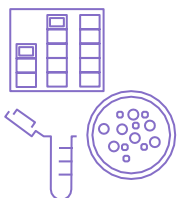
### Pre-Mixed and Pre-Defined Samples

DNA Type	DNA Length (include vector)	Template Concentration in 10 $\mu$ l	Template Total Mass	Your Primer Total Picomoles	Pre-Mixed Volume (Template + Your Primer)
Plasmids	<6 kb	~50 ng / $\mu$ l	~500 ng	25 pmol	15 $\mu$ l
	6 - 10 kb	~80 ng / $\mu$ l	~800 ng		
	>10 kb	~100 ng / $\mu$ l	~1000 ng		
Purified PCR Products	<500 bp	~1 ng / $\mu$ l	~10 ng	25 pmol	15 $\mu$ l
	500 - 1000 bp	~2 ng / $\mu$ l	~20 ng		
	1000 - 2000 bp	~4 ng / $\mu$ l	~40 ng		
	2000 - 4000 bp	~6 ng / $\mu$ l	~60 ng		
	>4000 bp	Treat as plasmid	Treat as plasmid		





# Sample Submission Guidelines



## Custom Service: Plasmid, Unpurified PCR & More

Azenta will determine template concentration, optimize for sequencing, and mix with primer.

Refer to table for recommended concentrations and volumes.

DNA Type	DNA Length (include vector)	Template Concentration	Template Total Mass (recommended)	Template Volume Per Reaction	Your Primer Concentration $\mu\text{M}$ (pmol/ $\mu\text{l}$ )	Your Primer Volume Per Reaction
Plasmids	Any size	Unknown	At least 500 ng	10 $\mu\text{l}$	5 $\mu\text{M}$	5 $\mu\text{l}$
PCR Products	Any size	Unknown	At least 40 ng	10 $\mu\text{l}$	5 $\mu\text{M}$	5 $\mu\text{l}$

Note: Please send primer in a separate tube.

### Azenta Life Sciences will perform the following depending on your template:

- **Plasmid** - Measure and optimize template concentration for sequencing
- **Unpurified PCR** - Clean up crude PCR products containing single band products with ExoSAP-IT
- **Bacterial Colony / Glycerol Stock / Phage Plaque / Phage Supernatant** - Amplify template from clones
- **BAC DNA** - Perform specialized chemistry reactions to overcome BAC DNA sequencing challenges

Welcome to the improved Azenta Life Sciences Laboratory Information Management System (CLIMS). This At-A-Glance will walk you through placing a Sanger Sequencing order.

## 1 Getting Started

Go to <https://clims4.genewiz.com>

If you have not logged into your account before, your username will be your email address. Use the 'Forgot Password' function to reset your password. A link will be sent to email address to enable you to reset it.

After you have logged into your CLIMS account you will be directed to the homepage.

Select "Sanger Sequencing" on the left-hand tab, then select whether you will be submitting your samples in tubes or plates.



## 2 Select Service Type

1. Please choose the DNA type and Service type from the drop-down menus.
2. Choose the service priority: Standard (or Express if available at your location).
3. Select the type of barcodes you wish to use – Prepaid or Non-Prepaid. (Please note: **Barcodes must be available in your account to use - see separate guide on ordering, activating and assigning barcodes**).
4. Select whether the barcodes labels will be assigned manually or automatically.
5. Fill out the "# of reactions" (not the number of samples) and click "apply" and an order template will load.

The screenshot shows the 'Sanger Sequencing' order form. It includes fields for 'DNA Type\*', 'Service Type\*', 'Service Priority\*' (with radio buttons for Standard and Express), 'Tube Barcode\*', 'Barcode Assignment' (with radio buttons for Manually and Auto), and '# of Reactions\*'. There are 'Apply' and 'Upload Excel' buttons at the bottom right.

**Pre-Mixed:** Your primer and sample have been mixed in the **SAME TUBE**

**Pre-Defined:** Your primer and sample are in **SEPARATE TUBES** or an Azenta Universal primer is selected



### 3 Complete Sample and Primer Details

Order	#	Reaction Barcode	Sample Name	Primer Barcode	My Primer	library	Azenta/GENEWIZ Primer Selection Tool
1	1		EXAMPLE		ex>Your_Primer_Name		ex:T7
1	1	T00000051	AZENTA1	00133957	primer-1		
1	2	T00000052	AZENTA2				CMV-Forward

Select barcodes for each sample and primer and fill in the sample and primer names. Each line represents a reaction.

Please note that if you have a large number of samples, to save you rewriting, you can click on to fill sequentially or on to fill all values.

Once all the details are correctly entered, click on "Save and Review."

Order	#	Reaction Barcode	Sample Name	Primer Barcode	My Primer	library	Azenta/GENEWIZ Primer Selection Tool	Notes
1	1		EXAMPLE		ex>Your_Primer_Name		ex:T7	
1	1	T00000051	AZENTA1	00133957	primer-1			
1	2	T00000052	AZENTA2				CMV-Forward	

A primer review page will then appear. If correct, click on "Confirm."

**Confirm Primer Details**

*Note: PreDefined primers must be submitted at 10uM concentration.  
If Azenta/GENEWIZ is storing the primer for you, 10uM is also appropriate.*

Primer Name	Primer Source	Stored At Azenta	Conc. (uM)	E-Library	Save to E-Library	Order Primer	Sequence	Scale (nmol)
CMV-Forward	Azenta/GENEWIZ	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
primer-1	My Primer	<input type="checkbox"/>	10	My Library	<input type="checkbox"/>	<input type="checkbox"/>		

*Note: Oligo For Retain Orders*  
A 25nmol scale oligo will yield enough primer for 500 Sanger sequencing reactions.  
A 50nmol scale oligo will yield enough primer for 1000 Sanger sequencing reactions.



### 3 Complete Sample and Primer Details (Continued)

Following this, a summary of your order will be displayed with the number of Samples Submitted, and the resulting reactions; if the details are correct, click on "Add to Cart."

Home / Order Form / Order(s) Review

Order(s) Information			
DNA Type	PCR Product - Purified	Order Name	Samples Submitted 2
Service Type	Predefined	Order Comments	Number of Reactions 2
Service Priority	Standard		
Purification Type	Column		

Estimated Price Information			
<b>Service</b>	<b>Unit Price</b>	<b>Quantity</b>	
Tube Sanger DNA sequencing, Prepaid	Prepaid	2	
			Order Subtotal:
			Shipping/Handling:
			Estimated Total*:
*Pricing is estimated. Actual charges will reflect work done. In cases where tax is applicable but not estimated, it will be applied on the invoice			

Resulting Reactions							
Tracking Number [50-668409924]							
Reaction	Sample #	Reaction Barcode	DNA Name	Primer Barcode	Primer	Primer Details	Notes
IF01	1	T00000051	AZENTA1	00133957	primer-1 [10µM]	I will Provide	
IF02	2	T00000052	AZENTA2		CMV-Forward	Universal	

CANCEL BACK TO EDIT PRINT PRICE **ADD TO CART**

You will be re-directed onto another page, which will ask you to confirm your shipping option, addresses and payment method.

2: Sample Submission/Delivery Options

Sample Submission/Pickup method: Ship Samples to Azena/GENEWIZ Lab

General Dropbox FAQs

Please ship your samples to:

GENEWIZ Europe  
Attn: GA  
Bahnhofstraße 86  
04158 Leipzig  
Germany  
877-(436-3949)

Save as default method:

3: Shipping Address

Edit Add New Address

4: Payment Type

Credit Card  PO  Multiple POs Upload PO/WAT Certificate x


PO Number   Save this PO for Future Use

Please note: must provide valid PO


If you use Purchase orders as your method of payment, please select "PO" and enter your "purchase order number" in the box; if you are using a prepaid account as your method of payment, please select "PO" and enter your "prepaid account number" in the box.

## 4 Submit Order

Once all details are entered, click on "Submit Order." This will display another window with your "Order Receipt" along with your "Tracking #." Please print the Order Receipt and attach it to your samples (please note that pop-ups need to be enabled on your browser to allow this window to be displayed.)



**Order Receipt - Tracking # 50-667717407**  
 Service Type - Premix



Thank you for your order

INSTRUCTIONS: Please print this form and include a copy with any submitted samples. For NGS orders EXCEPT EZ services, please submit a Sample Form through your online account. For Regulatory orders, also include the Sample Registration PDF.

Ship Samples to (# applicable)	Customer Information	Payment Details	Customer Shipping Address
GENEWIZ Europe Attn: GA Bahnhofstraße 86 04158 Leipzig Germany 877-(436-3949)	Name Phone PI Company Email	Payment Type PO Number Submitted Time Account Manager Account Manager Email	

Order Summary	
Order type	Sanger Sequencing
Service Priority	Standard
Service Type	Premix
DNA Type	PCR Product - Purified
Purification Type	Enzymatic
Number of Reactions	1
Layout	Vertical View

Reaction	#	Barcode	DNA Name	Notes
IF01	1	T00000252	001	


## 5 Track Your Order Status


To review the status of your order, this can be accessed from your dashboard/home page:


**PLACE AN ORDER**
Choose an icon Below to Start Your Order


QUICK LINKS


- Sanger Sequencing
- Gene Synthesis
- Next Generation Sequencing
- Oligo Synthesis
- Plasmid DNA Preparation
- Cloning and Mutagenesis
- GLP-Compliant Services
- Molecular Genetics (PCR+Sanger)
- Clinical Services
- Cell and Gene Therapy Services
- Biofluid Processing
- Sample Sourcing Service


  
 My barcodes  
 Activate, manage and share barcodes


  
 Order barcodes


  
 Sanger Sequencing tube  
 Reaction-based invoicing

  
 Sanger Sequencing plate  
 Plate-based invoicing

  
 Mutation/SNP Analysis

  
 Custom

  
 Standard Prep  
 Per run service for all plasmids

  
 Oligo-Flex Services  
 Modified and purified oligos up to 150 nt, delivered

MY ORDERS
My Shared Projects
GeneGroup@
My Tools

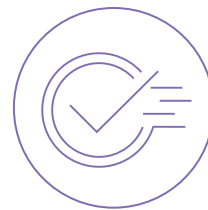
Search  [Show Advanced Filter](#)

Order Date	Tracking #	Order Name	Project Name	Service Line	Service Type	Priority	Qty	Order Status	Action
	50-668409924			Sanger Sequencing	PCR Product - Purified	Standard	2	Waiting for Sample	Summary

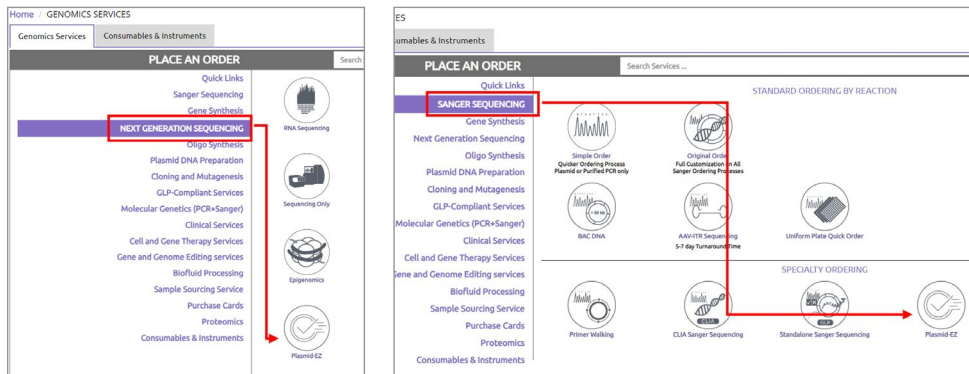
You can also opt in to receive 3 different emails at different stages of the order: Order Placed, Order Received, Delivery of Results.



# Plasmid-EZ Order Guide



**1** Log into your account and select Plasmid-EZ under Next Generation Sequencing or Sanger Sequencing.



**2** Enter general information about your order, including sample number, to pre-populate the samples table.

**Order Information**

DNA Type ?  
 Plasmid DNA ▼

Samples at Azenta

I will submit a plasmid DNA preparation order with these samples ?

# of Samples  Apply

OR

Upload Excel:  
 Download/Upload


**3** Complete sample tube/plate information.

**Sample Placement Visual**

View ?  
 Tube View ▼

Plate Number ?  
 1 ▼

1 To 2 samples of total 2 samples Preview ?



● Filled ● Valid ● Invalid ⊗ Empty



# Plasmid-EZ Order Guide

4 Enter sample information in the table. Required fields are marked with asterisks (\*).

Plate	Tube	Sample #	Sample Name	Sample Buffer	Method of DNA Measurement	Normalized 50 ng/μL	DNA Conc. (ng/μL)	Sample Vol. (μL)	Total DNA Amount(ng)	Host	Plasmid Size	Reference Sequence	Comments
1	A1	1	EXAMPLE	Tri/Eb	Qubit	Yes	50	25	500	Z.mobilis, E. Coll	<25 kb	ATCTAG...	
1	T11	1											+
1	T12	2											+
1	T13	3											+
1	T14	4											+
1	T15	5											+

5 Click **SAVE AND REVIEW**

6 Review the order information and click **ADD TO CART**

7 Click **PROCEED WITH CHECKOUT**

8 Select sample submission method; you can choose to submit your samples at your local dropbox location or ship to us directly at the provided address.

2: Sample Submission/Delivery Options

**Sample Submission/Pickup method:**

\*Note: Please do not put samples for other service lines in packages containing NGS orders.

[General Dropbox FAQs](#)

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**Locate a box:** [0 dropboxes found for your institution \(click here to select\)](#)

9 Complete payment information and checkout your order. Make sure to print out your order receipt and include it with your samples when submitting at your local dropbox or shipping directly to us.