

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

MOLab Online Order Steps:

- 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 BuySite system.
- 3). Create your account at <https://clims4.genewiz.com/> or use the MOLab login account (tche@uchicago.edu // UCmolab@2024).
- 4). Complete the online submission process (see pages 4 to 7).
- 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>

Account Contact:

Emily Fish, MS

Account Manager – Genomic Services

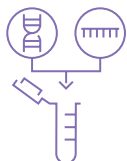
+1 763.923.1267

Emily.Fish@azenta.com

azenta.com



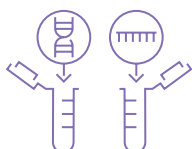
Sample Submission Guidelines



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**.

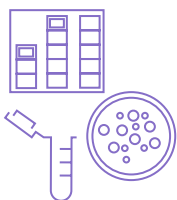
Refer to table for recommended concentrations and volumes per reaction.

Pre-Mixed and Pre-Defined Samples

DNA Type	DNA Length (include vector)	Template Concentration in 10 μ l	Template Total Mass	Your Primer Total Picomoles	Pre-Mixed Volume (Template + Your Primer)
Plasmids	<6 kb	~50 ng / μ l	~500 ng	25 pmol	15 μ l
	6 - 10 kb	~80 ng / μ l	~800 ng		
	>10 kb	~100 ng / μ l	~1000 ng		
Purified PCR Products	<500 bp	~1 ng / μ l	~10 ng	25 pmol	15 μ l
	500 - 1000 bp	~2 ng / μ l	~20 ng		
	1000 - 2000 bp	~4 ng / μ l	~40 ng		
	2000 - 4000 bp	~6 ng / μ 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 μM (pmol/ μl)	Your Primer Volume Per Reaction
Plasmids	Any size	Unknown	At least 500 ng	10 μl	5 μM	5 μl
PCR Products	Any size	Unknown	At least 40 ng	10 μl	5 μM	5 μl

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.

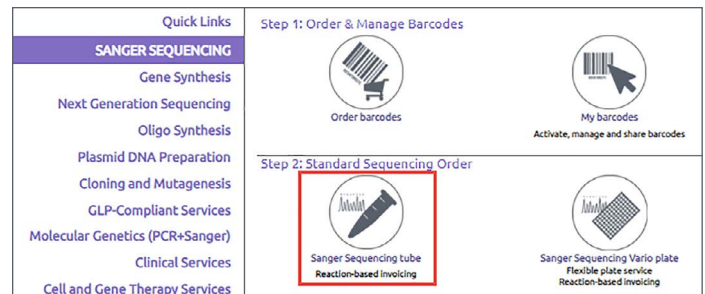
1 Getting Started

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 (Standard selected), Tube Barcode, Barcode Assignment (Manually selected), and # of Reactions. There are 'Apply' and 'Upload Excel' buttons.

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.”

Auto Repair
Export Samples to Excel
Available Primer Barcode: 259
Order/Edit Primers
Spreadsheet Functionality Key

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	

CANCEL
SAVE AS DRAFT
SAVE AND REVIEW

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.

Cancel
Confirm

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			
Service	Unit Price	Quantity	
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 Azenta/GENEWIZ Lab

General Dropbox FAQs

Please ship your samples to:

GENEWIZ Europe
Attn: CA
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/VAT 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

Show Advanced Filter

Edit View Results Print Receipt Download Add to Project Delete Bulk Download

Order Data	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.



azenta.com

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