

Sample Submission Guidelines Whole Plasmid Sequencing (WPS)

Powered by Oxford Nanopore Technologies

Sample Requirements

- Plasmid or PCR product size: up to 200 kb
- Tube type: 1.5 mL microcentrifuge tubes or strip-tubes

Purification: Plasmids should be purified using commercial kits from [Qiagen](#), [Zymo Research](#), [NEB](#), [Thermo Fisher](#), or similar PCR products should be cleaned up using commercial kits from [Qiagen](#), [Zymo Research](#), [NEB](#), [Thermo Fisher](#), or using [AMPure XP](#) beads

- Quantification: Use a **Qubit Fluorometer** (or equivalent). If using Nanodrop or another spectrophotometer, please confirm the sample has OD260/280 >1.8 and <2.1, and OD260/230 >2.0

Note: Nanodrop is not recommended as it can overestimate DNA concentration.

DNA Concentration and Volumes

DNA Concentration Minimum Volume Required.

Service Level	Size	Concentration	Volume
Standard	1 to 25 kb	100 ng/μL	≥ 5 μL
Large	26 to 125 kb	100 ng/μL	≥ 10 μL
Very Large	126 to 200 kb	50 ng/μL	≥ 30 μL

Elution Buffer

Avoid high-EDTA buffers. Water or standard commercial kit elution buffers are acceptable.

Direct Testing from Colony or Culture



Pick

Pick a bacterial colony from an overnight plate, or pipette 1 μL of overnight bacterial culture, phage lysate, or glycerol stock.



Deposit

Add to a labeled microfuge tube containing 50 ul of a buffered saline.

- PBS pH 7.2 to 7.5
- TES (TrisHCl 10mM, EDTA 1mM, NaCl 150mM) pH 7.2 to 7.5

DO NOT use distilled water.



Vortex

Vortex briefly to re-suspend.

Sample Naming Protocol

Sample name should contain between 1 and 40 characters.

Use only upper/lower-case letters, numbers, dashes (-), and underscores (_) in your sample name. Special characters will be removed by ACGT during processing.



Processing Timelines

- Samples must be received at an ACGT facility before 10am on the run day to be included on that day's run.
(Note that colony/culture samples require up to 16 hours for additional processing, and would therefore need to be received at least a full day before the run day; otherwise they would be analyzed on the consecutive run.)
- Data results will be uploaded to your account in less than 24 hours from the date samples have been run.

Deliverables

You will receive an email notification once your results are available. Please log into your account to access your data. You will receive the following files:

- FASTA – Consensus sequence(s)
- HTML – Report
- Raw Data (FASTQ reads) will be provided upon request

Shipping Guidelines

Individual Tubes

DNA or culture samples can be shipped at **room temperature** without compromising results, provided they are free of contaminants. Ensure all tubes are **securely sealed**. For 1.5–1.7 mL microcentrifuge tubes, we recommend **wrapping the caps in parafilm** for added protection. Samples may also be submitted in **PCR strip-tubes**.

96-Well Plates

To minimize the risk of leakage and to maintain DNA integrity during transit, follow these recommendations:

- **Seal securely:** Use compatible **strip caps** for the tightest seal. If adhesive seals are used, opt for **strong aluminum tape** and press it firmly around each well.
- **Prevent shifting:** Pack plates **tightly** using paper, foil, or padding to minimize movement and reduce the chance of seal disruption during shipping.

Important Notes:

- Upon arrival, samples will be inspected for seal integrity and volume to confirm suitability for processing.
- Please include a printed copy of your Sample Submission Form in the shipment.

Shipping Address

ACGT, Inc., 35 Waltz Drive, Wheeling, IL 60090, USA

You may deposit your DNA sample(s) for Whole Plasmid Sequencing at any of ACGT's dropboxes. Please visit our [Shipping and Dropbox Information](#) page for a map of nationwide dropboxes.

Note: Deliveries are not accepted on weekends (Saturday or Sunday).

For any questions or assistance, feel free to contact us at wps@acgtinc.com.