

# nanoCORE Amplicon Metagenomics

## Accepted Samples

- **Isolation Material:** If you'd like us to perform DNA isolation on your samples, please prepare them according to the instructions in our user guide: [UserGuide DNA Isolation](#).
- **Isolated DNA:** Follow the instructions in this user guide to prepare your DNA sample. Ensure the prepared DNA is free from any inhibitors that could affect the PCR reaction. We recommend using procedures and kits specifically designed for microbiome DNA isolation. Please be aware that depending on the origin of your samples, the isolated DNA may contain not only microbiome DNA but also host or matrix DNA. For optimal results, dissolve the samples in DNase-free water or a 10 mM Tris-HCl buffer (pH 7.5 - 8.5).

## Sample Preparation and Sample Specifications

Amount and Concentration of DNA	Buffer/Solvent	Container
Provide total DNA ( $\geq 0.1 \mu\text{g}$ per sample with $\geq 5 \text{ ng}/\mu\text{l}$ ) in $\geq 20 \mu\text{l}$	DNase-free water or 10 mM Tris-HCl buffer (pH 7.5 - 8.5)	1-24 samples: tubes or 96-well PCR plate >24 samples: 96-well PCR plate

## Sample Packaging

### Single Tubes are only for <24 samples acceptable

- An additional fee for arraying will apply for shipments of more than 24 samples in individual tubes.
- Please send samples in 1.5 ml low DNA/RNA affinity tubes with safe-lock lids.
- Ensure each sample is labeled with the name or number you entered in our webshop under 'Sample ID (on Label)'.  
• Pack your tubes into a transparent plastic bag.



### Plates are preferred shipment containers

- Use full skirted, round well, low DNA/RNA affinity, transparent PCR-Plates for sending samples. Do not use other plate formats due to risk of cross contamination and to facilitate further automated processing.
- The plate should be filled vertically, column by column.



### Important:

To ensure safe shipment of your samples, especially when using dry ice, it's important to select and test appropriate foils beforehand, as plastic foils can come loose due to temperature fluctuations and humidity. We also recommend spinning down the plates and carefully freezing your samples to ensure the liquid is concentrated at the bottom of the wells. For additional security, consider sealing your 96-well plate with 8-cap strips, which provide a more reliable seal under these conditions. Avoid sealing the plate with aluminum foil or a heat sealer.

## Available Primer Systems

When placing your order in the webshop, you can select from the following primer systems.

Primer System	Size	Comment
16s ONT	~1500 nt	<b>Locus:</b> Full-length 16S rRNA gene (ONT Barcoding Kit Primer). Designed for bacterial detection.
16s Archaea	~1000 nt	<b>Locus:</b> Partial 16S rRNA gene. Specifically amplifies diverse and novel archaeal taxa from environmental samples.
16s Advanced	~1500 nt	<b>Locus:</b> Full-length 16S rRNA gene. Microsynth's proprietary primer, offering broader species amplification compared to the 16S ONT primer.
ITS1-4	~1200 nt	<b>Locus:</b> Full-length ITS sequences. Pan-eukaryotic metabarcoding, including fungal identification.
ITSFu	~1200 nt	<b>Locus:</b> Full-length ITS sequences. Pan-eukaryotic metabarcoding with a focus on fungal identification.
18s-ITS	up to 1500nt	<b>Locus:</b> Full-length ITS sequences & 18S fragment. Pan-eukaryotic metabarcoding, including fungal identification.

## Order Form Completion

Prior to shipping your sequencing samples to Microsynth, please proceed as follows to complete your order form:

1. Enter our webshop at <https://srvweb.microsynth.ch/Home/OntSelection>.
2. Click on nanoCORE Amplicon Metagenomics "Tubes and Plates".
3. Fill in the order form and submit your order.
4. Include the printout of your Webshop submission in the package.
5. Prepare your package for shipment. For express deliveries (1–2 days), ambient shipping is sufficient. For longer delivery times, we recommend using dry ice to ensure sample stability.
6. If you are sending multiple plates in a single shipment, please make sure that the plates are labeled and separated from each other with padding or bubble wrap to prevent puncturing the foils.
7. Please make sure that your shipment arrives at our lab on a weekday and not on a weekend or holiday.

Address your parcel to:

Microsynth AG  
Library Prep  
Schützenstrasse 15  
9436 Balgach

You will receive a confirmation when your samples arrive at our lab. The confirmation will be sent to the same email address you used to log in to our webshop.

## Need More Information?

### Microsynth AG

Schützenstrasse 15  
9436 Balgach  
Switzerland  
Phone: +41 71 722 83 33  
Email: [genome@microsynth.ch](mailto:genome@microsynth.ch)

UGV\_24/09.1