



## Biomaterial

# Sample preparation and Shipping Guidelines

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## SERVICE CONDITIONS

### *Please read carefully!*

The samples must meet the quality and quantity criteria and the shipping conditions, as indicated in the “Sample Requirements” and “Shipping” sections below. In case such specifications are not available the Customer shall enquire before sending any material. If storing and shipping conditions or sample specifications do not meet the required standards, IGA Technology Services may ask for an additional processing fee and the standard turnaround time might be delayed. Please note that the experimental setup and processing will be based on the information reported in the **Biomaterial Sample Spreadsheet (see Documents/Guidelines section in <https://igatechnology.com/>)**. For both DNA and RNA, the checkpoint of the workflow will be the estimation of the final concentration. If possible, please provide two separate aliquots of the same material. This will enable us to repeat the extraction process by varying the quantities of the starting material or making minor modifications to the same protocol in the event of a failure in the first attempt. Should the second attempt also fail, we will endeavor to optimize the protocol or implement a new one, which may incur an additional fee.

### **Extra processing fees**

Extra processing fee can be applied in the following cases:

- Custom protocol setup
- Extra purification of DNA or RNA

Please enquire for more information.

### Contacts

All requests for information about the service must only be sent via email ([dna-rna-extraction@igatechnology.com](mailto:dna-rna-extraction@igatechnology.com)) and will be dealt with within a maximum of two working days from receipt. In case problems arise during the sample processing, the Customer will be contacted directly to agree on possible solutions. Notifications will be sent to the contact person indicated in the Sample Spreadsheet at the sample reception and delivery.

For sample return and data storage and delivery refer to general Terms and Conditions.



## SAMPLE REQUIREMENTS

Pseudonymization.

***Please refer to general Terms and Conditions.***

***If human samples are provided in the form of tissue or body fluid, please fill out the Human samples clearance form and return a signed copy.***

### Stool

For DNA and RNA extractions

Please see **Stool\_samples\_preparation\_guidelines\_v03**.

### Plants and Animals

For DNA extractions

- For fewer than 8 samples, place the material in 1.5 ml tubes. Otherwise, we recommend sending the samples in Collection Microtubes (QIAGEN, catalog number ID: 19560) which must be sealed with the appropriate Collection Microtube Caps (QIAGEN, catalog number ID: 19566).
- For plant samples, the typical amount of starting material required per purification is 10-30 mg of lyophilized tissue or 40-120 mg of fresh tissue. Lyophilized tissue can be shipped at room temperature, while fresh tissue needs to be flash frozen upon collection and then shipped in dry ice. For animal samples, the amount of starting material needed varies based on the sample type; please enquire for more information.
- It is strongly recommended to send samples in duplicate.

For HMW DNA extractions (plants only)

- Place at least 10-15 grams of flash-frozen, intact young tissues (leaves/buds) in 15 ml/50 ml Falcon tubes. Samples must be shipped in dry ice.
- It is strongly recommended to send samples in duplicate.
- Should you have limited amounts of tissue, please inquire.

For RNA extractions (plants only)

- For plant tissues, place material in 2 ml or 15 ml/50 ml Falcon tubes, depending on the availability and the material footprint.
- Send tissue sample in dry-ice or lyophilized with GenTegraRNA, GENEWIZ RNA or Zymo Research DNA/RNA Shield Stabilization reagent. If using RNALater please inquire.
- It is strongly recommended to send samples in duplicate.



## Soil

### For DNA extractions

- Provide at least 250 milligrams per sample, in sealed 1.5 to 50 ml tubes.
- If the number of samples exceeds 24, please get in touch with us.
- The samples can be shipped at room temperature or refrigerated with cold packs or dry ice depending on the Customer's requirements.
- It is strongly recommended to send samples in duplicate.

### For RNA extractions

- Provide at least 250 milligrams per sample, in sealed 1.5 to 50 ml tubes.
- The samples should be shipped in dry-ice or submerged in a stabilizer such RNALater or RNAProtect at room temperature.
- It is strongly recommended to send samples in duplicate.

## Skin and skin patches

### For DNA extractions

- Provide at least 25 milligrams per sample, in sealed 1.5 to 50 ml tubes.
- The samples can be shipped at room temperature or refrigerated with cold packs or dry ice depending on the Customer's requirements.
- It is strongly recommended to send samples in duplicate.

### For RNA extractions

- Provide a maximum of 100 milligrams per sample, in sealed 1.5 or 2.0 ml tubes.

## Food

### For DNA extractions

- Provide at least 25 milligrams per sample, in sealed 1.5 to 50 ml tubes.
- The samples can be shipped at room temperature or refrigerated with cold packs or dry ice depending on the Customer's requirements.
- It is strongly recommended to send samples in duplicate.

### For RNA extractions

- It is not available now, please inquire.

## Cell pellet

### For DNA extractions

- Provide at least  $10^2 - 10^7$  cultured cells per sample, in sealed 1.5 to 50 ml tubes - Please consider that the yield of the extraction is sample-dependent, and the likelihood of success increases if the number of cells is greater. Depending on the application, contact the appropriate specialist to define the optimal starting quantity of cells.



- The samples must be shipped in dry ice.
- It is strongly recommended to send samples in duplicate.

#### For RNA extractions

- Provide at least  $10^4$  –  $10^7$  cultured cells per sample, in sealed 1.5 to 50 ml tubes. Please consider that the yield of the extraction is sample-dependent, and the likelihood of success increases if the number of cells is greater. Depending on the application, contact the appropriate specialist to define the optimal starting quantity of cells.
- The samples must be shipped in dry ice.
- It is strongly recommended to send samples in duplicate.

#### Bacterial pellet

##### For DNA extractions

- Provide at least 250 mg of biomass per sample: for batches with 48 samples or less collect bacterial samples in sterile 1.5 ml tubes, otherwise use deep 96-well plates.
- The samples must be shipped in dry ice.
- Indicate in the Sample Spread Sheet the kind of biomass sent (e.g., Gram +/-, spores, etc.) in order to optimize the extraction protocol.

##### For RNA extractions

- Provide at least 250 mg of biomass per sample: for batches with 48 samples or less collect bacterial samples in sterile 1.5 ml tubes, otherwise use deep 96-well plates.
- Addition of RNase inhibitors is strongly recommended to prevent degradation during the shipment, and they should be added as soon as samples are collected.
- The samples must be shipped in dry ice. Make sure to freeze samples (normally at  $-80^{\circ}\text{C}$ ) as soon as samples are collected and until delivery.
- Indicate in the Sample Spread Sheet the kind of biomass sent (e.g., Gram +/-, spores, etc.) in order to optimize the extraction protocol.

It is strongly recommended to send samples in duplicate. Biomass used for DNA/RNA extraction must be pelleted and cannot be sent in the form of liquid/solid cultures, agar slants, etc. Please note that only Biosafety Level 1 (BSL-1) bacterial samples can be processed at our facilities.

#### SHIPPING PROCEDURE

1.5 mL to 50 mL tubes can be accepted. They must be sealed with parafilm. The tubes must have on the vial top, a clear and permanent sign (or a thin label) with a **progressive number** corresponding to information specified in the Biomaterial Sample Spreadsheet.

If sending sample in plates, please stick to the mentioned brand and model. Each plate must



be labeled with a **plate identifier** indicated on the Biomaterial Sample Spreadsheet.

**IMPORTANT!!!**

**0,5 mL and 0.2 mL tubes as well as strips are not accepted !.**

For more details, please follow “**Shipping and Packaging Guidelines**” PDF file available at

<https://igatechnology.com/igatech/documents/>

**IF YOU HAVE ACTIVATED THE PROJECT via <https://customer-portal.igatechnology.com/>:**

Please follow the **shipping procedure** on the portal, attaching the **Sample Spreadsheet** and generating a **shipping barcode** to be insert into the parcel.

**IF YOU RECEIVED THE QUOTATION via EMAIL**

It is **MANDATORY to send us the compiled Sample Spreadsheet, both** with the shipped parcel and via e-mail. To properly track and safeguard your samples, send us the Tracking Number via e-mail (see Contacts).

**Shipping Address:**

IGA Technology Services srl  
c/o Parco Scientifico e Tecnologico “Luigi Danieli”  
via Jacopo Linussio 51  
33100 Udine Z.I.U.  
Italy