



BioArk Leaf collection kit

1. Introduction

The purpose of this document is to explain how to use the BioArk™ Leaf collection kit from LGC, Biosearch Technologies™. This step-by-step guide will ensure that samples arrive at Biosearch Technologies sites in the best possible condition.

2. Kit contents and customer requirements

- 1 x 96-well storage rack with lid, and 12 x 8-strip tubes
- 12 x perforated 8-strip caps
- 1 x 50 g desiccant sachet. Please note that this sachet will arrive in a foil bag.

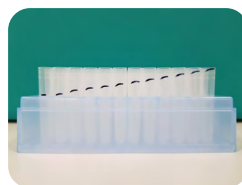
Do not remove it from this bag until plates are being prepared for shipping as this will dramatically reduce its ability to desiccate leaf samples.

- 1 x large labelled sealable bag
- Elastic band
- 1 x leaf cutting tool (where applicable)

- 1 x leaf cutting mat (where applicable)
Please note: If multiple kits have been requested, only one cutting tool and one cutting mat will be sent to you.
- Access to plants from which leaf tissue is to be collected.
- Information from Biosearch Technologies regarding the number of leaf discs required per sample for your specific project (see 'Section 5').

3. Recommendations before you start

- Familiarise yourself with the components of the kit
- Read through the step-by-step guide to ensure that you understand all of the steps
- Ensure that the desiccant sachet is still securely sealed in the foil bag. **Do not open this bag until you are preparing the samples for shipping. If the humonitor indicator inside the desiccant bag is pink. Do not use. Contact our team immediately.**
- Label the 96-well tube storage rack(s) with a unique ID.
- Draw a diagonal line across the long side of the tubes in the rack to orient the tubes if accidentally dropped.



4. Overview of the procedure

- Cut the leaf discs from the relevant leaf material.
- Add the leaf discs to the tube storage rack (supplied) and seal the tubes.
- Place the desiccant sachet on top of the sealed tubes, and fix the rack lid in place.
- Place the prepared tube storage rack inside a plastic bag (supplied) and seal the bag.
- Package suitably for shipping, ensuring that an appropriate description for customs is included with samples for shipping.

5. Determining the appropriate number of leaf discs per sample

Before you receive this kit from Biosearch Technologies, you will be required to discuss your project with a

member of our team. Based on information that you provide, Biosearch Technologies can advise on the number of leaf discs required per individual sample for your specific project. The number of leaf discs required per sample will differ depending on the genome size of your study organism, the number of SNPs that require genotyping for these samples, and the nature of the leaf tissue itself. The larger the genome size, the greater the number of leaf discs that will be required. Likewise, the greater the number of SNPs that are to be subsequently analysed, the greater the number of leaf discs that will be required to ensure that there is sufficient DNA available.

Shipping addresses of Biosearch Technologies sites

Refer to your order information to determine the appropriate site to ship your samples. Ship samples at ambient temperature.

Germany

LGC, Biosearch Technologies, Ostendstraße 25,
Haus 8, 12459 Berlin, Germany
Tel: +49 (0)30 5304 2200
Email: info.de@lgcgroup.com

UK

LGC, Biosearch Technologies, Unit 27 Trident
Industrial Estate, Pindar Road, Hoddesdon, Herts
EN11 0DE, UK
Tel: +44 (0)1992 470 757
Email: orders.uk@lgcgroup.com

USA

LGC, Biosearch Technologies (Lucigen), 2905
Parmenter Street, Middleton, WI 53562, USA
Tel: +1 608 831 9011
Email: mid.custserv@lgcgroup.com

6. Step-by-step guide to collecting leaf tissue samples



1. Remove the cap from the leaf cutting tool.



2. Place the leaf to be sampled on the leaf cutting mat. Please note: the leaf does not have to be detached from the plant.

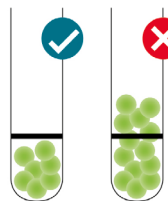


3. Hold the cutting tool vertically above the leaf and then push the tool into the leaf tissue. Twist the tool (i.e. turn clockwise) as it is being pushed into the leaf tissue to cut and pick the leaf disc up in the cutting tool.



4. Insert the end of the cutting tool into the first well of the 96-well tube storage rack and depress the plunger to dispense the leaf disc. Please note: the tubes are in strips of 8 and can be lifted out of the rack to aid dispensing of the leaf disc.

5. Repeat steps 3 and 4 until you have collected the appropriate number of leaf discs for the first leaf sample (NB. Biosearch Technologies will advise you regarding the number of leaf discs required, see Section 5).



Please do not fill the tube above the black line as indicated in the picture.

6. Once sufficient leaf discs have been sampled from the first plant, the cutting tool needs to be washed. Place the end of the cutting tool into a container of clean water and depress the plunger 5-10 times.

7. After washing the cutting tool, flick/shake the tool until it is completely dry.

8. Repeat steps 1 to 7 for all of the remaining plants that require sampling. Ensure that the cutting tool is washed (steps 6 and 7) in between sampling of each individual plant.

9. Ensure that the 96-well tube storage rack containing collected leaf discs is labelled appropriately.

7. Step-by-step guide to packing leaf tissue samples for shipping



1. Once the 96-well storage rack is full (or all required plants have been sampled), seal each strip of tubes within the rack using the perforated strip caps provided. Press each cap firmly into place to ensure that the tubes are securely sealed.



2. Remove the desiccant sachet from the sealed foil bag (this must not be removed from the bag until plates are being filled.) Ensure the humonitor (found inside of sachet) is blue before applying to completed plate. If the humonitor is pink, do not continue to sample leaf material. Contact our team immediately.



3. Place the desiccant sachet directly on top of the strips of cap-sealed tubes.



4. Replace the plastic lid on top of the 96-well storage rack, ensuring that the desiccant sachet is situated beneath the plastic lid. Please be aware that the plastic lid will not fit tightly onto the base of the rack due to the presence of the desiccant sachet.



5. Secure the lid in place using the elastic band provided.



6. Place the sealed rack into the large labelled sealable bag provided. Force excess air out of the bag and seal the bag tightly.



7. Place the sealed bag into the original plant kit box.

8. Place the completed BioArk Leaf collection kit(s) into a suitable container for shipping to one of the Biosearch Technologies sites.

9. Prepare a description of the package contents for customs.

10. Send the completed package to the appropriate Biosearch Technologies site, as advised by your project manager.



11. Complete a [plate map file](#) available from our website and send this to your project manager at Biosearch Technologies. Your project can then be set up in our database in advance of receiving your leaf tissue sample plates.

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