



Plant sample collection kit



Contents

1. Introduction
2. Kit contents and customer requirements
3. Recommendations before you start
4. Overview of the procedure
5. Determining the appropriate number of leaf discs per sample
6. Step-by-step guide to collecting leaf tissue samples
7. Step-by-step guide to packing leaf tissue samples for shipping

1. Introduction

The purpose of this document is to explain how to collect and pack leaf tissue samples using the LGC plant sample collection kit (KBS-9370-001). This step-by-step guide will ensure that leaf tissue collection is carried out in the most optimal way to ensure that samples arrive at LGC in the best possible condition.

2. Kit contents and customer requirements

Kit contents

- 1 x 96-well tube storage rack with lid, containing 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 plastic 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
- Clean water (to wash cutting tool)
- Suitable box / container for shipping the completed package to LGC
- Information from LGC regarding the number of leaf discs required per sample for your specific project (See Section 5 for more details).

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 plastic bag. Do not open this bag until you are preparing the samples for shipping.
- Prepare a dish of clean water for washing the cutting tool in between sampling of each individual plant.
- Label the 96-well tube storage rack(s) with a unique ID.

- Ensure that you have discussed your project with LGC, and that you have subsequently been advised regarding the appropriate number of leaf discs that are required per individual plant (see Section 5 for more details).

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

5. Determining the appropriate number of leaf discs per sample

Before you receive this kit from LGC, you will be required to discuss your project with a member of our team. Based on information that you provide, LGC can advise on the number of leaf discs required per individual sample for your specific project.

It is important to determine the appropriate number of leaf discs that are required before commencing with leaf disc collection. 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.

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.

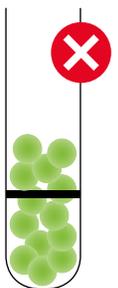
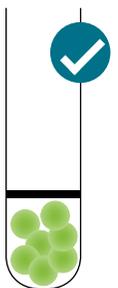


3. Hold the cutting tool vertically above the leaf and then push the tool into the leaf tissue. Twist the tool (i.e. turn clockwise) as it is being pushed into the leaf tissue to cut and pick the leaf disc up in the cutting tool.



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. LGC 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 – 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 plastic bag (NB. this must not be removed from the bag until plates are being prepared for shipping).



3. Place the desiccant sachet directly on top of the strip capped 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 leaf sampling kit(s) into a suitable container for shipping to LGC.

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

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

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



Shipping addresses:

USA

LGC Genomics, 100 Cummings Center, Suite 420H
Beverly, MA 01915, USA

Tel: + 1 978 232 9430 Email: sales.us@lgcgroup.com

UK

LGC Genomics, Unit 27 Trident Industrial Estate
Pindar Road, Hoddesdon, Herts EN11 0DE, UK

Tel: +44 (0)1992 470 757 Email: orders.uk@lgcgroup.com

Germany

LGC Genomics, Ostendstraße 25/Haus 8
12459 Berlin, Germany

Tel: +49 (0)30 5304 2200 Email: info.de@lgcgroup.com