

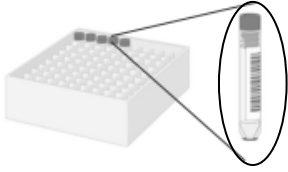
Root for Mother Testing

Sample Collection Instructions

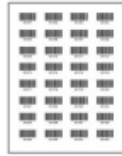
Accurate, repeated testing and removal of infected plants is critical for maintaining consistent yields. This document details the steps to collect cannabis tissue samples for testing at TUMI Genomics Laboratories. These instructions can be used for combined viroid and fungal/fungal-like pathogen testing offered as a part of our mother panels.

1 Prepare Materials

Provided Materials



Testing Vials



Extra barcode stickers

User Supplied Materials



Disposable gloves



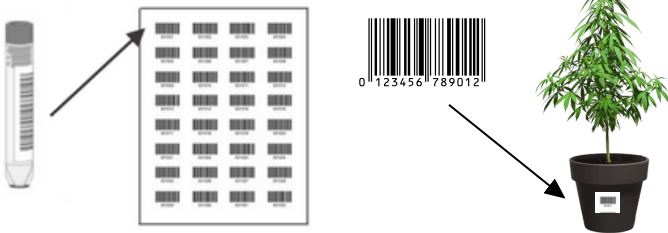
10% Bleach solution



Paper Towels

2 Identify and Label Plant

Identify the plant(s) to be tested. Add the barcode sticker that corresponds to the selected testing vial to the plant. The barcode number will appear in your testing report.



3 Collect Root Tissue

Lightly brush topsoil of plant to reveal surface root. Select both living, white and healthy root as well as any compromised root. It is important to select both in order to best detect both viroid/viruses and fungi pathogens.



Healthy

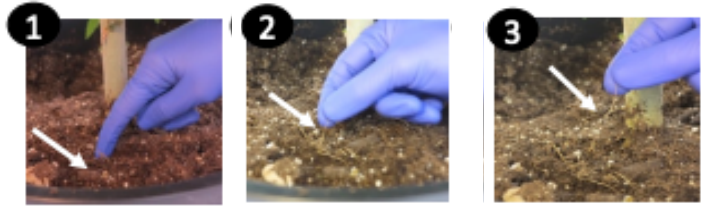


Compromised

3 CONT Collect Root Tissue

Pull gently on healthy root to break it away from the root mass. Only a small amount of root tissue is needed (~the length of a pinky fingernail).

Using a gloved hand, collect four root samples evenly spaced around the base of the plant.



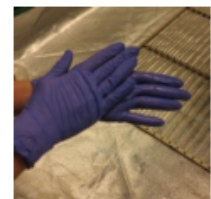
For large, established mother plants, it may be easier to select roots from the bottom of the plant in order to find both healthy living as well as compromised. To do this, gently grip the base of the plant and lift the entire root ball out of the pot. You may need an additional person to pull the roots off of the root ball.



Place root tissue on a clean paper towel, or directly into sample tube after brushing off excess growing medium (see section 5). Select two healthy and 2 compromised roots.

4 Sterilize Hands Between Plants

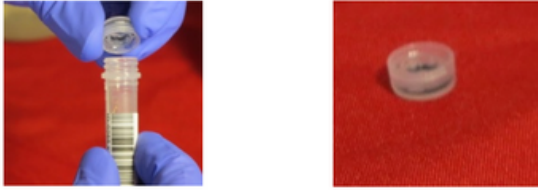
Spray gloved hands with 10% bleach and spread evenly as you would hand sanitizer.



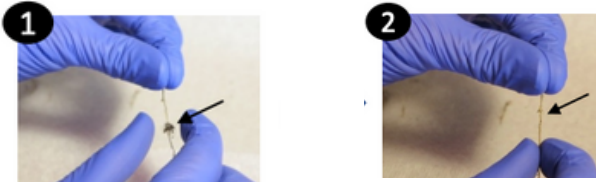
Root for Mother Testing Sample Collection Instructions

5 Add Tissue to Testing Vial

Remove lid of sample tube and place on a clean surface facing up. Take care to not expose inside of cap to contaminated areas as this could affect the accuracy of your results.



Remove excess soil or growing medium from root tissue by gently sliding hands along the root hair. The small amount of growing medium that remains will not interfere with the assay.



Gather root samples together. Using the trimming tool or your fingers, rip about ¼ of an inch from root samples into the testing vial.



Screw the lid back on sample tube **tightly**. Tap the tube gently on a hard surface to gather the tissue in the solution at the bottom of the tube.



6 Prepare Sample

Shake the tube vigorously for 10- 15 seconds. A white foam will appear at the top of the tube, which is normal. Your sample is now ready to ship.



7 Ship Samples to TUMI Genomics

Confirm the lid is screwed on tightly. Place vials with prepared tissue in the white box they were shipped in or a sealed plastic bag. Ship samples to:

TUMI Genomics
320 East Vine Drive Suite 129
Fort Collins, CO 80524

Common Questions

How long does the test kit last?

The testing vials are good for three months at room temperature and up to a year if stored in the refrigerator.

Should I add extra tissue for a better result?

No, excessive tissue can reduce the accuracy of the test. The most critical factor is to include small amounts of tissue from multiple parts of the plant, including the root.

How long is the sample stable after collection?

We encourage customers to ship samples back to us as soon as possible. However, tissue samples are stable in the collection solution for a week or more. If storing for a prolonged period (more than 3 days), refrigeration is recommended.

Should I ship my samples on ice?

Ice is not necessary when shipping samples. The stabilization solution is very effective even in warm, summer temperatures.

How do I collect samples if I use rockwool?

To sample root tissue from plants grown in rockwool blocks, we recommend lifting the plant totally and cutting half inch pieces of fresh root tissue from the four sides of the block, and/or the bottom of the block.

Have more questions?

See the FAQ section of our website or contact us at (720) 807-8864 or sales@tumigenomics.com

Domestic Clients



USDA Permit Packet

This packet must be printed and packed into your return shipment to the TUMI Genomics lab.

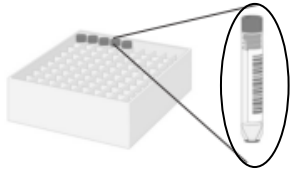
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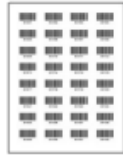
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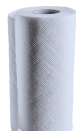
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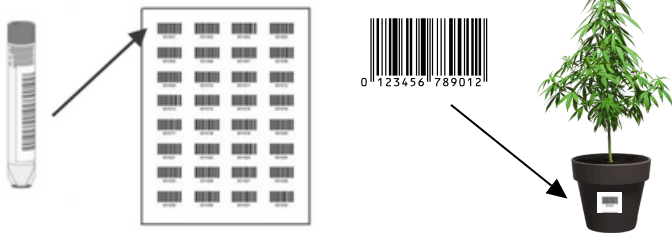
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Healthy

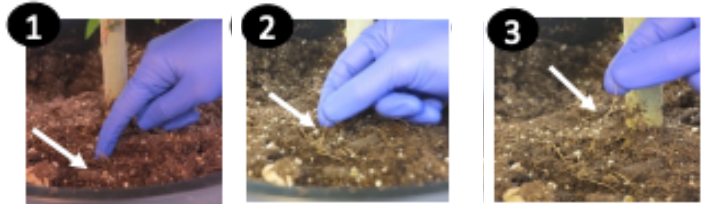


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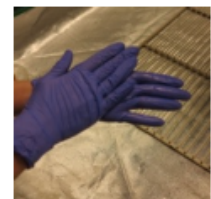
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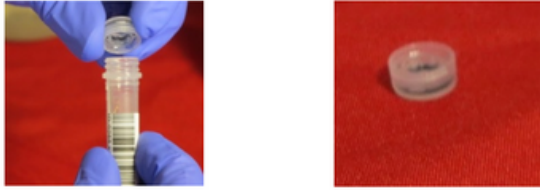


Root for Viroid/Virus Testing

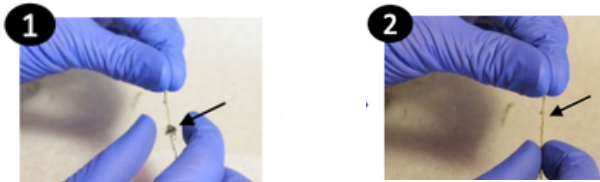
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