

Highlights:

- Results in 5 minutes or less

Contents of Kit:

- 100 QuickStix Strips packed in two moisture-resistant canisters
- 100 Disposable Tissue Extractors, each consisting of a tube with punch cap and pestle (optional item with bulk packaging)
- Extraction Buffer or Buffer Salts



Obtain Leaf Tissue



Grind Tissue

Catalog Number AS 037 LT

Intended Use

The EnviroLogix QuickStix Kit for mCry3A (Agrisure RW) is designed to detect the modified Cry3A protein at levels typically expressed in corn leaf tissue. The modified Cry3A protein can be found in products containing the Syngenta corn rootworm event.

How the Test Works

Corn that has been genetically modified with the modified Cry3A gene express that protein in its tissue. To detect the protein with the QuickStix Strip, tissue samples must be extracted and the protein solubilized in Extraction Buffer.

Each QuickStix Strip has an absorbent pad at each end. The protective tape with the arrow indicates which end of the strip to insert into the extraction tube. The sample travels up the membrane strip and is absorbed into the larger pad at the top of the strip. The portion of the strip between the protective tape and the absorbent pad at the top of the strip is used to view the reactions as described under “Interpreting the Results”.

Sample Preparation

To prepare Extraction Buffer from Buffer Salts:

1. Dissolve one package of Extraction Buffer Salts and 2.5 mL of surfactant into 1 liter of distilled or deionized water, and mix until dissolved.

To extract corn leaf tissue:

2. Sandwich a folded section of leaf tissue between the cap and body of the disposable tissue extractor tube; snap two circular tissue punches by closing the cap. Push the leaf punches down into the tapered bottom of the tube with the pestle. Sample identification should be marked on the tube with a waterproof marker.
3. Insert the pestle into the tube and grind the tissue by rotating the pestle against the sides of the tube with twisting motions. Continue this process for 20 to 30 seconds or until the leaf tissue is well ground.
4. Carefully add 0.5 mL Extraction Buffer into the tube containing ground corn leaf.
5. Repeat the grinding step to mix tissue with Buffer. Dispose of the pestle (do not re-use pestles on more than one sample).

How to Run the QuickStix Strip Test

1. Allow refrigerated canisters to come to room temperature before opening. Remove the QuickStix Strips to be used. Avoid bending the strips. Reseal the canister immediately.



Insert QuickStix

2. Place the strip into the tissue extractor tube. The sample will travel up the strip. Use a rack to support multiple tubes if needed.
3. Allow the strip to develop for 5 minutes before making final assay interpretations. Positive sample results may become obvious much more quickly.
4. If you wish to retain the strip, cut off and discard the bottom section of the strip covered by the arrow tape.

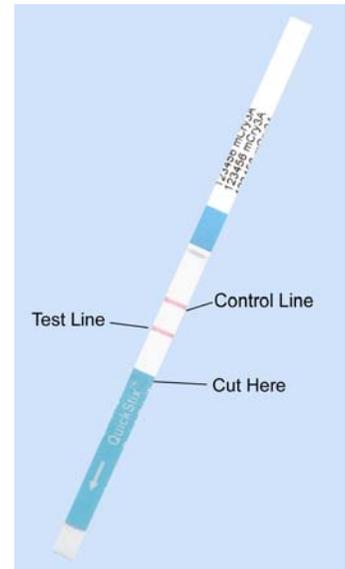
Interpreting the Results

Development of the Control Line within 5 minutes indicates that the strip has functioned properly. Any strip that does not develop a Control Line should be discarded and the sample re-tested using another strip.

If the sample extract contained mCry3A protein, a second line (Test Line) will develop on the membrane strip between the Control Line and the protective tape, within 5 minutes of sample addition. *The results should be interpreted as positive for mCry3A protein expression. Any clearly discernible pink Test Line is considered positive.*

If no Test Line is observed after 5 minutes have elapsed, the results should be interpreted as negative, meaning that the sample contained less mCry3A protein than is typically expressed in the tissues of Syngenta Corn Rootworm Event-modified plants.

Warning: A negative result with this test on corn leaf extracts does not necessarily rule out the presence of other genetically modified material in the sample.



Any pink Test Line is considered positive

Kit Storage

QuickStix can be stored at room temperature, or refrigerated for a longer shelf life. Note the shelf life on the kit box for each storage temperature. The kit may be used in field applications; however, prolonged exposure to high temperatures may adversely affect the test results. Do not open the desiccated canister until ready to use the test strips.

Precautions and Notes

- This kit is designed for screening for presence or absence only and is not meant to be quantitative.
- As with all tests, it is recommended that results be confirmed with an alternate method when necessary.
- The assay has been optimized using the protocol and buffer provided in the kit. Deviation from this protocol may invalidate the results of the test.
- The results generated through the proper use of this kit reflect the condition of the working sample directly tested. Extrapolation as to the condition of the originating lot from which the working sample was derived should be based on sound sampling procedures and statistical calculations which address random sampling effects, non-random sampling effects, and assay system uncertainty. A



negative result obtained when properly testing the working sample does not necessarily mean the originating lot is entirely negative for the analyte or protein in question.

- A negative result with this kit does not mean that the sampled tissue has not been otherwise genetically modified.
- A strong positive result may safely be interpreted in as little as 2 minutes after sample addition. It is not safe, however, to conclude that a sample is negative before a full 5 minutes has elapsed, as a weak positive sample may require the full 5 minutes for a distinct Test Line to appear.
- Protect all components from hot or cold extremes of temperature when not in use. Do not leave in direct sunlight or in vehicle.



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