

Rapid lateral flow strip (LFS) for detection of mCry3A in Corn leaf or Seed

Cat No. AID 057

Intended use

mCry3A lateral flow test kit (LFS) is intended to be used for the qualitative detection of modified Cry3A protein present in transgenic Maize plant carrying Syngenta corn root worm event MIR 604. This event is present in Syngenta Agrisure RW. The test is used to detect the mCry3A protein in individual Maize seed or leaf.

The total incubation time of the assay is 5 minutes.



Principle of the test

An antibody specific to the mCry3A protein molecule is immobilized on the test line area of nitrocellulose membrane. Second antibody specific for mCry3A molecule is conjugated with colloidal gold and incorporated in the sample area of lateral flow strip. Anti mouse IgG is immobilized on the control line area of the LFS.

When the LFS is placed in the sample extract, the mCry3A protein present in the sample extracts binds to the antibody labelled with gold nano particles and the complex moves upward by capillary action. The complex then binds to the antibody coated on the test line resulting in pink/purple color test line. As the complex moves further up, it binds to the control line resulting in pink/purple color control line. In absence of mCry3A, the test line does not appear as no complex binds to the test line while control line turns pink/purple color indicating validity of test protocol.

Cross-reactivity

The mCry3A LFS kit does not cross react with CP4EPSPS (RoundUp Ready**), Cry1F, Cry1Ac, eCry3.1Ab (AgriSure Duracade), Cry3Bb, Cry1Ab, Cry2A, Vip3A, Cry34Ab1, Cry35Ab1 or PAT (LibertyLink***).

Contents of the kit: Kit is sufficient for 100 tests

mCry3A LFS strips	50 strips per canister. Two canisters per kit
Extraction buffer	Two vials of 50 ml each. Ready to use
Dropper	One
Pack insert	One

Material and equipment required but not provided

- ❖ Pair of scissors.
- ❖ 1.5 ml Microfuge tube with cap
- ❖ Pestles
- ❖ Timer
- ❖ Marking pen and Paper towels.

Precautions

The mCry3A LFS kit is intended for in vitro use only. The reagents contain Sodium azide as preservative. Prevent direct skin and eye contact with kit components. Seek medical attention in case of accidental ingestion of kit components.

Storage of the kit

The kit should be stored at 2 - 8° C. The unopened kit is stable till the expiry date printed on the kit label. The cap of the canister should be closed firmly after removing the required strips. Exposure to moisture is likely to affect the performance of the test strips.

The kit should not be frozen.



Extracting protein by crushing with pestle

Sample preparation

Extraction of seed tissue:

Crush single seed and transfer it to 1.5ml microfuge tube. Add 1.0 ml of extraction buffer. Mix well and wait for five minutes.

Extraction of leaf tissue:

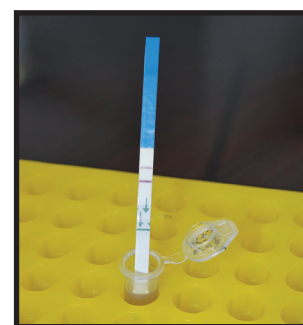
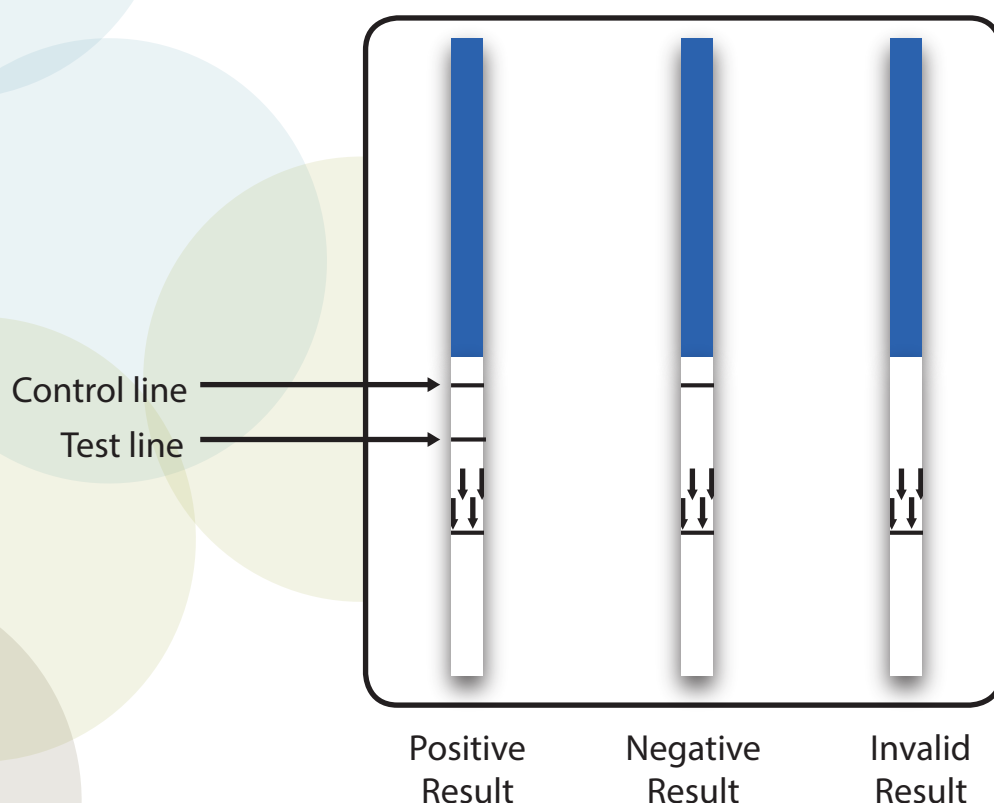
Take two leaf punch (approximate weight 20 mg) and transfer it to 1.5 ml microfuge tube. Grind the leaf tissue with pestle until the leaf tissue is well ground. Add 0.5 ml extraction buffer. Mix well and wait for 5 minutes. Use new pestle for each leaf sample to avoid cross contamination.

Assay Procedure

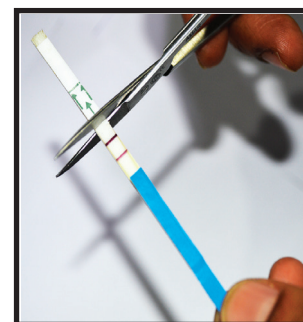
Allow canister to come to room temperature before opening it to remove the desired number of strips.

Insert one strip in each sample. Part of the strip showing arrow should be dipped in sample extract. Allow the test strip to remain in the microfuge tube in vertical position for 5 minutes.

Remove the strip and observe the result. Positive sample result may appear much earlier than 5 minutes. For permanent storage of strips, cut off the bottom section of the strip covered with arrow using pair of scissors.



LFS Strip in Sample



Cutting of strip for permanent record and storage

Interpretation of LFS results

Read the strip in 5 minutes.

Two line indicates positive test result while single line indicates negative results. Absence of control line in 5 minutes indicates invalid test.

The appearance of faint test line after 5 minutes should not be necessarily interpreted as positive test.

Notes

- ❖ The procedure instructions should be strictly followed to get correct results. Change in procedure may lead to wrong results.
- ❖ This kit has been optimized for individual Corn seed and leaf.
- ❖ Cross contamination between different microfuge tubes will lead to wrong results
- ❖ This kit is meant for screening for presence or absence of mCry3A in individual Corn seed and leaf.
- ❖ When in doubt, please confirm results with an alternate method.

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Eurofins Amar Immunodiagnostics Pvt. Ltd. warrants that the products sold hereunder ("the Product") are defect-free in material and workmanship, provided they are used in accordance with the prescribed instructions before the expiry of the products as printed on the product label.

The customer should notify Eurofins Amar Immunodiagnostics in writing of Warranty defects during the warranty period, including an offer by the customer to return the Products to Eurofins Amar Immunodiagnostics for evaluation. Eurofins Amar Immunodiagnostics will repair or replace, at its sole option, any product or part thereof that proves defective in materials or workmanship within the warranty period.

This warranty also does not apply to Products to which changes or modifications have been made or attempted by persons other than pursuant to written authorization by Eurofins Amar Immunodiagnostics

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***Liberty Link is a register trademark of Bayer Crop Science.

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