

Rapid lateral flow strip (LFS) kit for simultaneous trait detection of Cry1Ab and CP4EPSPS in corn seed/leaf
Cat No. AID 036

Intended use

The kit is used for the qualitative detection (yes/no) of Cry1Ab and CP4EPSPS proteins present in genetically modified individual corn seed or leaf. The total incubation time of the test is 10 minutes.



Principle of the test

The antibodies specific to Cry1Ab and CP4EPSPS are immobilized on the nitrocellulose membrane as two different test lines. An anti-mouse IgG is immobilized as control line. Second antibody specific for each Cry1Ab and CP4EPSPS is conjugated with colloidal gold and is incorporated in the sample area of lateral flow strip.

When the LFS is placed in the corn seed or leaf extract, the Cry1Ab or CP4EPSPS proteins, if present in the sample extract bind to the corresponding antibody labelled with gold nano particles and the complex moves upward by capillary action. The complex then binds to the antibody coated on the membrane as two different test lines resulting in pink/purple color test lines. As the complex moves further up, it binds to the control line resulting in pink/purple color control line. In the absence of protein in sample extract (Cry1Ab or CP4), the corresponding test line does not appear. Control line always appears in pink/purple color indicating validity of the test protocol.

Contents of the kit: Kit is sufficient for 100 tests

Cry1Ab/CP4EPSPS LFS strips:	50 strips in one canister. Two canisters per kit
Extraction buffer:	Two vials of 50 ml each. Ready to use
Pack insert:	One
Dropper:	One

Note: Kit is also available in 500, 1000 and 5000 test pack.

Material and equipment required but not provided

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|-----------------------------------|--------------------------------|----------|---------|
| ❖ 1.5 ml Microfuge tubes with cap | ❖ Marking pen and paper towels | ❖ Hammer | ❖ Timer |
| ❖ Pair of scissors | ❖ Pestles | ❖ Pliers | |

Precautions

The Cry1Ab/CP4EPSPS 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. Exposure to moisture is likely to affect the performance of the test strips.

The kit should not be frozen.

Sample preparation

Extraction of seed tissue:

Crush single corn seed with pliers and transfer seed powder to 1.5 ml microfuge tube. Add 1.0 ml of extraction buffer using calibrated dropper. Mix well and wait for 5 minutes.

Crushed seeds should be tested on the same day.

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.




Extracting protein by crushing with pestle

Assay Procedure

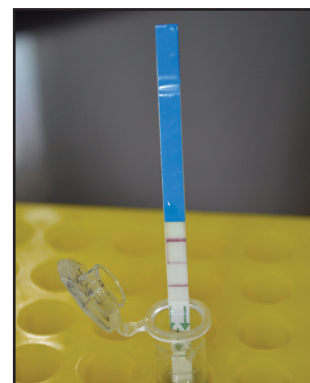
1. Allow canister to come to room temperature before opening it to remove the desired number of strips.
2. Insert one strip in each sample. Part of the strip showing arrow should be dipped in sample extract. Allow the test strip to remain in the microfuge tube/ crushing plate in vertical position for 10 minutes.
3. Remove the strips and observe the results. Positive sample results may appear much earlier than 10 minutes.
4. For permanent storage of strips, cut off the bottom section of the strip covered with arrow using pair of scissors.

Interpretation guide:

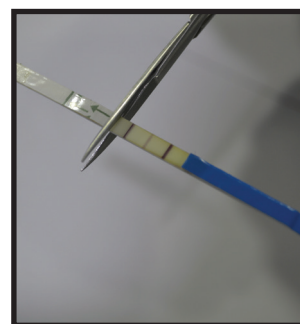


	Interpretation Guide			
	+RUR, +Cry1Ab	-RUR, +Cry1Ab	+RUR, -Cry1Ab	-RUR, -Cry1Ab
Control Line	—	—	—	—
Cry1Ab Test Line	—	—		
RUR Test Line	—		—	

— indicates where a line will appear on the strip



Strip in leaf extract with positive result



Cutting of strip for permanent record and storage

Interpretation of LFS results

Read the strip in 10 minutes.

Presence of Control line :

Control line should always be present. Absence of control line makes test invalid and the test should be repeated.

Presence of Test lines :

Control line will appear below the absorbent pad as per the picture above.

The **second line** from top is for Cry1Ab and it will appear if the sample is positive for Cry1Ab.

The **third line** from the top is for CP4EPSPS and it will appear if the sample is positive for CP4EPSPS.

Notes

- ❖ The appearance of faint test line after 10 minutes should not be necessarily interpreted as positive test.
- ❖ 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 Cry1Ab or CP4EPSPS in individual corn seed or 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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