

Read this package insert carefully before use

REF 05-5027

CyStain PI OxProtect

INTENDED USE

CyStain PI OxProtect is a reagent kit for nuclei extraction and DNA staining for a variety of oxidation-sensitive plant species in order to determine genome size and ploidy level. The prepared samples can be analyzed on flow cytometers with green or blue excitation and red emission.

KIT COMPONENTS

Packing contains the following reagents:

- 500 ml *Staining Buffer*
- 2 x 1.5 ml *Propidium Iodide*
- 1 x 5 mg *RNase A*

PERSONAL PROTECTIVE EQUIPMENT

When using the reagent(s) make sure to wear suitable PPE (gloves and eye protection).

INSTRUCTIONS

For instrument alignment and quality control, please refer to the IFU of your Flow Cytometer.

Preparation of RNase A stock solution:

1. Add 1.5 ml H_2O to 1 tube *RNase A* (containing 5 mg).
2. Mix well.

Store *RNase A stock solution* at - 20°C.

Preparation and staining of samples:

1. Put about 0.5 cm² leaf tissue in a *Petri dish* (REF No.: 04-2005).
2. Add 0.5 ml *Staining Buffer*.
3. Chop the plant sample by using a sharp razor blade for 30 - 60 sec (razor blades need to be changed after 5 to 10 samples).
4. Incubate for 30 sec to 90 sec.
5. Filter sample through 50 µm *CellTrics® filter* (REF No.: 04-0042-2317) into a *Sample tube* (REF No.: 04-2000).
6. Add 1.5 ml *Staining Buffer*, 10 µl *Propidium Iodide*, 5 µl *RNase A stock solution*

7. Mix well.
8. Incubate for 30 - 60 minutes, protected from light at room temperature.
9. Start analysing.

PRECAUTIONS

Other plant tissue than leaf material can be used. Amount of tissue is recommendation – adjust if extraction does not properly work. Incubate the sample at room temperature. Incubation time varies between plant species and tissues and might be tested to find optimum condition.

Use new petri dish and *CellTrics® filter* for every sample.

Possibility of storage at 2 - 8°C in the dark is plant specific.

INSTRUMENT REQUIREMENTS

A flow cytometer with 488 nm or 532 nm laser light source and a parameter of orange – red fluorescence emission (> 590 nm).

FLOW CYTOMETRY ANALYSIS

Choose layout suited to display PI fluorescent signals. Adjust instrument settings (gain, speed) and run sample. Gate peak of interest and if necessary adjust for every run.

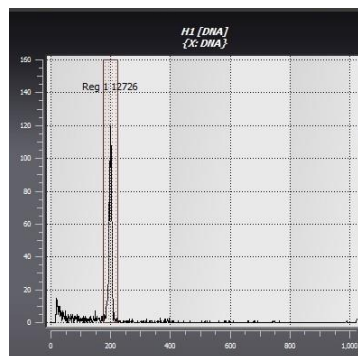


Figure 1: Analysis of *Lantana camara* using *CyStain PI OxProtect* on a *CyFlow® Ploidy Analyser*

STORAGE AND STABILITY

Storage

2 - 8°C in the dark

Shelf life

Please refer to the expiry date labelled on the components.

HAZARD AND PRECAUTIONARY STATEMENTS



GHS 08 Signal words: Danger, Warning

Hazard statement(s)

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H341 Suspected of causing genetic defects.

Precautionary statement(s)

P201 Obtain special instructions before use

P280 Wear protective gloves / protective clothing / eye protection / face protection.

P284 Wear respiratory protection.

P304 IF INHALED: Remove person to fresh air +P340 and keep comfortable for breathing.

P308 IF exposed or concerned: Get medical +P313 advice / attention.

P342 if experiencing respiratory symptoms: call +P311 a POISON CENTER / doctor.

P501 Dispose of contents / container to a facility in accordance with local and national regulations.

For further information refer to the Safety Data Sheet(s). Find Safety Data Sheets to our products at www.sysmex-partec.com.

DISPOSAL PROCEDURE

Disposal procedure should meet requirements of applicable local regulations.

MANUFACTURER



Systemex Partec GmbH
Am Flugplatz 13
02828 Görlitz
Germany

Fon +49 3581 8756 - 0

Fax +49 3581 8746 - 70

E-mail info@sysmex-partec.com

Web www.sysmex-partec.com

SYMBOLS



Reference Number



Manufacturer



Batch code



Temperature limit



Use by



Fragile, handle with care



Keep away from sunlight