Read this package insert carefully before use

REF **05-5002**

CyStain® UV Precise P

INTENDED USE

CyStain® UV Precise P is a reagent kit for nuclei extraction and DNA staining for a variety of different plant species and plant tissues in order to determine genome size variations and ploidy level at highest accuracy. The prepared samples can be analysed on flow cytometers with UV excitation and blue emission.

KIT COMPONENTS

Packing contains the following reagents:

- 125 ml *Nuclei Extraction Buffer*
- 500 ml *Staining Buffer*

INSTRUCTIONS

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

Sample preparation:

- put about 0.5 cm^2 leaf tissue or other plant material in a petri dish (Order No.: 04-2005)
- add 0.5 ml *Nuclei Extraction Buffer*
- chop the plant sample by using a **sharp** razor blade for 30 - 60 sec [Razor blades need to be exchanged after 5-10 samples]
- incubate for 30 sec to 5 min (Best incubation time for each individual species and material has to be tested)*
- filter sample through 50 µm *CellTrics®* filter (Order No.: 04-0042-2317) into a sample tube (Order No.: 04-2000)
- add 2.0 ml *Staining Buffer*
- after short incubation of 30 - 60 sec start analysing

Prepared samples are stable for about 12 h stored at 2-8°C in the dark**.

PRECAUTIONS

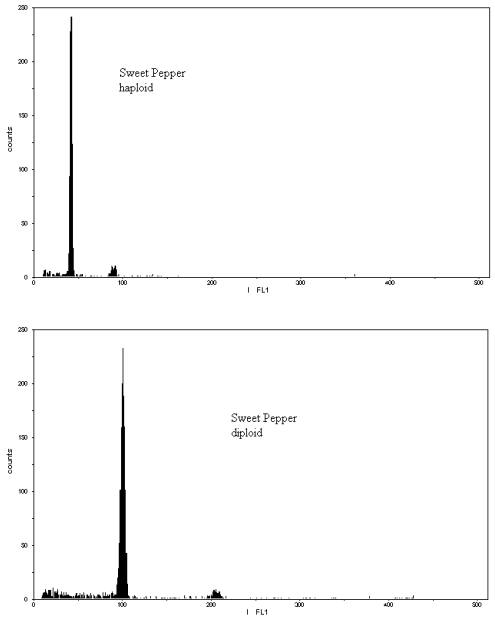
*Incubate the sample at room temperature; incubation time varies between plant species and tissues. Most species give best results with a short incubation time (0.5 – 2 min). Some species show best results after long incubation time (e.g. roses: 2-3 h).

**Certain plant species, cultivars or strains show high concentrations of oxidants in their vacuoles. Oxidation decreases the quality and reproducibility of DNA analysis. Oxidation may be recognized by a change in colour of the stained sample (brownish, greyish to dark). Those samples have to be prepared on ice and be analysed immediately after staining. By adding an anti-oxidising agent (PVP 1% or Mercaptoethanol) to the *Staining Buffer* the effects of oxidation can be reduced.

INSTRUMENT REQUIREMENTS

A flow cytometer with UV excitation (λ = 355 nm – 375 nm) and a parameter for blue fluorescence emission (λ = 435 nm - 500 nm).

Analysis of Sweet Pepper leaf tissue with various ploidy levels.



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 05 Signal word: Danger!

H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.
P264 Wash hands and face thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P310 Immediately call a POISON CENTER/doctor.
P501 Dispose of contents/container in accordance with local and national regulations.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

DISPOSAL PROCEDURE
Disposal procedure should meet requirements of applicable local regulations.