

Read this package insert carefully before use

REF 05-5003

## CyStain® UV Precise T

### INTENDED USE

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

### KIT COMPONENTS

Packing contains reagents for 250 tests:

- 125 ml *Nuclei Extraction Buffer*
- 5 x 0.525 g *Buffer Reagent*
- 500 ml *Staining Buffer*

### INSTRUCTIONS

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

#### Preparation of extraction buffer:

Mix one tube *Buffer Reagent* (0.525 g) with 25 ml *Nuclei Extraction Buffer* in a separate flask. This mixture is the extraction buffer and is stable for maximal 7 days, stored at 2-8°C in the dark.

#### Sample preparation:

- Put about 0.5 cm<sup>2</sup> leaf tissue or other plant material in a petri dish (Order No.: 04-2005)
- Add 0.5 ml 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*
- Incubate shortly (30-120 sec) and 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 (0.5-5 min).

\*\*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 ( $\lambda = 355 \text{ nm} - 375 \text{ nm}$ ) and a parameter for blue fluorescence emission ( $\lambda = 435 \text{ nm} - 500 \text{ nm}$ ).

### STORAGE AND STABILITY

Storage: 18-25°C in the dark

Shelf life: Please refer to the expiry date as indicated on the components

### HAZARD AND PRECAUTIONARY STATEMENTS



GHS 07

Signal word: Warning!

H319 Causes serious eye irritation.

P101 If medical advice is needed, have product container or label at hand.

P280 Wear protective gloves/eye protection.

P337+P313 If eye irritation persists: Get medical advice/attention.

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.