

	Operating mode	Réf : MO-PHIVLG_Propidoium_Iodide_01 Version 01 date : 18/05/2020 page 1/2
	Propidium iodide staining	

1. Object

Cell viability : propidium iodide is excluded from live cell. Stain the nucleus of dead cell

The propidium ion stains cell walls but does not pass through the intact cell membranes of living cells. It readily diffuses into dead cells and forms highly fluorescent complexes by intercalation between base pairs of double-stranded nucleic acids.

Cell wall staining : propidium iodide bind to pectin

PI interact with negatively charged carboxyl and hydroxyl groups on homogalacturonans (HGs). PI and Ca^{2+} bind to the same sites in cell walls (Rounds et al., plant Physiology 2011)

2. Health and safety

Suspected of causing genetic defects



Skin Corrosion/Irritation Category 2

Serious Eye Damage/Eye Irritation Category 2

Germ Cell Mutagenicity Category 2

Specific target organ toxicity (single exposure) Category 3

Target Organs - Respiratory system.

Wear lab coat and gloves

3. Reagents (chemicals and biological)

Propidium Iodide cas : 25535-16-4

Synonyms 3,8-Diamino-5-[3-(diethylmethylammonio)propyl]-6-phenylphenanthridinium diiodide

4. Operating Mode

Stock solution Molecular Probes™ Iodure de propidium - solution 1 mg/ml in water

Dilution depending on the sample. Final concentration around 2 to 10 $\mu\text{g} / \text{ml}$

Root arabidopsis seedling staining

Dilution 500 X, incubation time : 10- 15 min in the dark, rinsed in water 2 min.

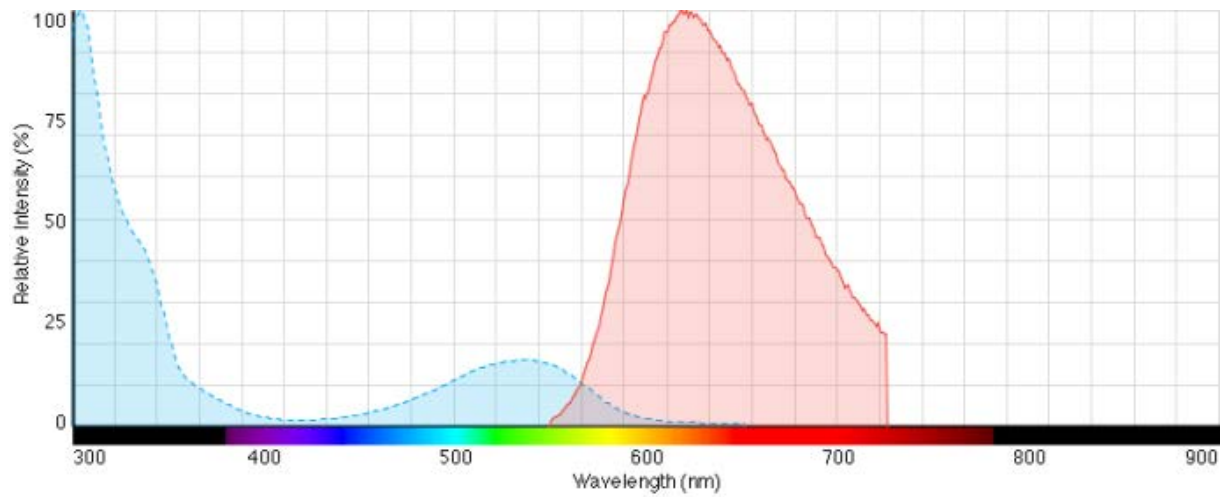
Microscope observation

Ex max : 535 nm

Em : 617 nm

	Writer	Examiner	Approving
Name : Fonction : signature :	Carine Alcon		

	Operating mode	Réf : MO-PHIVLG_Propidoium_Iodide_01 Version 01 date : 18/05/2020 page 2/2
	Propidium iodide staining	



	Writer	Examiner	Approving
Name : Fonction : signature :	Carine Alcon		

	Operating mode	Réf : MO-PHIVLG_Propidoium_Iodide_01 Version 01 date : 18/05/2020 page 3/2
	Propidium iodide staining	