

For Research Use Only. Not For Use In Diagnostic Procedures

Version 2.0

吖啶橙(AO)/碘化丙啶(PI) 细胞活性染色试剂盒

Acridine Orange / Propidium Iodide (AO/PI) Cell Viability Kit



Cat.No. MCT9020

Size : 1000 tests 5000 tests Technical literature is available at : www.mesgenbio.com.E-mail MesGen Technical Services if you have questions on use of this system : tech@mesgenbio.com**Description**

Acridine orange (AO) is a nucleic acid selective fluorescent cationic dye. It is cell-permeable, and will stain both live and dead cells. AO is commonly used for fluorescence microscopy and flow cytometry analysis of cellular physiology and cell cycle status. This cell-permeant cellular stain can be utilized in conjunction with a number of other staining solutions. Under the fluorescent microscope: Live cells will appear uniformly green; Apoptotic cells will stain green and contain bright green dots in the nuclei as a consequence of chromatin condensation and nuclear fragmentation; Necrotic cells will stain orange, but the fluorescent is weak or even disappear. PI can stain only cells that have lost membrane integrity. Combined with PI, necrotic cells stain orange, but have a nuclear morphology resembling that of viable cells, with no condensed chromatin. Then normal cells, apoptotic cells and necrotic cells can be distinguished by using this AO/PI staining kit.

Kit Components

	1000 Tests	5000 Tests
Solution A (AO Staining Solution)	5ml	25ml
Solution B (PI Staining Solution)	5ml	25ml
10X Staining Buffer	10ml	50ml

Cell Staining Procedure

1. Dilute 10X Staining Buffer with distilled water to 1X Staining Buffer.
2. Wash cells twice with PBS and re-suspend cells in desired volume of 1X Staining Buffer.
3. Add 5 µl Solution A and 5 µl Solution B to 90 µl cell suspension, and mix gently.
4. Incubate 1~10 min at room temperature, protected from light.
5. Analyze staining cells by florescent microscope or flow cytometry.

Remarks : AO excitation maximum at 502 nm and an emission maximum at 525 nm (green). PI excitation maximum is 535 nm and the emission maximum is 617 nm (red).

Caution

As the optimal staining conditions may vary among different cell types, we recommend that a suitable concentration of Solution A and B be determined individually. Please note that PI is suspected to be highly carcinogenic, so careful handling of the reagent is required.

Storage condition

2~8°C and protect from light. Reagent is stable for at least one year.

Reference

Bioconjugate Chem. 2021,32,4:755-762

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