

Product Information

DRAQ 7, 0.3 mM

Catalog Number: D4076

Product Size: 0.5 mL, 1 mL

Application Scope: Cellular imaging

Parameters

Ex/Em: 633/695 nm

Storage

Store at 4 °C and protect from light. When stored as directed, product is stable for at least 12 months.

Description

DRAQ7 is a far-red fluorescent dye that only stains the nuclei of dead and permeabilized cells. This anthraquinone dye is impermeable to intact cells, making it ideal for the exclusion of nonviable cells by flow cytometry. DRAQ7 rapidly stains double-stranded DNA (dsDNA), thus it can be used for cell-cycle analysis in fixed cells to report DNA content. It can be used in most cell types, eukaryotes and prokaryotes: mammals, bacteria, parasites, plants, etc. It can be used with live cell dyes for dynamic activity detection.

DRAQ 7 is an ideal alternative to PI and 7-AAD because it is not excited by UV light and has no emission overlap with PE / PE homologues. It can be combined with FITC, PE and other purple dyes for multicolor analysis without washing. Or RNase processing. DRAQ 7 can be detected by flow cytometry, laser scanning cytometry and confocal microscopy.

DRAQ 7 is optimally excited at 647 nm. When using a flow

cytometer, it can be excited at 488, 514, and 568 nm. For imaging microscopy, excitation at 633 or 647 nm is recommended. DRAQ 7 is not recommended for use with other far-red fluorescent dyes that can be excited by 488 or 633 nm.

Protocol

1. Prepare PBS buffer without sodium azide.
2. Fixation: Fix with 4% paraformaldehyde for 15 min at room temperature.
3. Wash the cells twice with PBS.
4. Permeability. Cells were permeabilized in 0.5% Triton X-100 for 10 min at room temperature.
5. Wash the cells twice with PBS.
6. Optional: Perform immunofluorescence staining according to your requirements.
7. Dilute DRAQ 7 to the optimal concentration for different cells, and stain at room temperature for 5-30 minutes (staining at 37 °C requires shorter staining time).
8. Detection with fluorescence microscope or flow cytometry.

Notes

1. There are quenching problems with fluorescent dyes. Please avoid light to slow down the fluorescence quenching.
2. For your safety and health, please wear lab coats and disposable gloves.

