Product Information

DRAQ 5, 5mM

Catalog Number: D4068

Product Size**:** 50 μL, 200 μL

Application Scope: Cell tracing, tracking, cellular imaging

Parameters

Ex/Em: 646/697 nm

Molecular Weight: 412.49

Storage

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

Description

Draq 5 is an anthraquinone dye with high affinity for double-stranded DNA. It is membrane-permeable dye that can label live or fixed/dead cells. In flow cytometry, this dye can be used to distinguish nucleated and non-nucleated cells. Draq 5 can also be used to report nuclear DNA content for ploidy and cell cycle analysis because it binds DNA stoichiometrically. In fluorescent microscopy, it can be used as a nuclear counterstain. Draq 5 has been reported for use in flow cytometric analysis, microscopy, immunocytochemistry, and cell labeling.

Draq 5 can be excited by wavelengths from 488 to 647 nm. For microscopy imaging, 633 or 647 nm sources for excitation are recommended. For flow cytometry, with excitation at 488nm, this dye can be detected with filter of 685LP dichroic mirror and 710/50 band pass; with excitation at 633 nm, it can be detected with filter of 660/20 band pass. For cell cycle analysis, a higher wavelength filter is recommended, such as 735LP dichroic mirror and 780/60 band pass, to optimize the CV for the G1 and G2/M peaks. Please make sure that your instrument is capable of detecting this dye.

Because of its broad excitation and emission properties, Draq 5 is not recommended in combination with other far-red fluorochromes excited by 488 or 633 nm laser lines.

Protocol

In multicolor staining experiments, Draq5 is usually the last stain, because Draq5 does not require the washing step after staining, so Draq5 can be directly added to the cell-containing medium for live cell staining.

1. Prepare PBS buffer without sodium azide or specific media for specific cells.

2. Resuspend cells in PBS or culture medium to control cell density ≤ 4 × 10^5 cells / mL. For adherent cells and some tissues, roughly estimate the number of cells.

3. Add the appropriate volume of Draq5 staining solution according to Table 1. Draq 5 staining solution can be directly added to the surface of tissues or adherent cells, or directly into fresh culture medium.

Table 1 Number of cells and required Draq 5 volume and final concentration

Cell sample preparation		**Draq 5 volume and final concentration**		
Number of cells	PBS or medium	5 μM	10 μM	25 μM
1×10^6	2500 μL	2.5 μL	5 μL	10 μL
4×10^5	1000 μL	1 μL	2 μL	4 μL
2×10^5	500 μL	0.5 μL	1 μL	2 μL

US EVERBRIGHT INC.
Tel:0512-88965152
Web:www.useverbright.com/

1×10^5	250 μL	0.25 μL	0.5 μL	1 μL
5×10^4	125 μL	0.13 μL	0.25 μL	0.5 μL

4. Mix gently and incubate at room temperature for 5-30 minutes. If incubate at 37 ° C, short the time to 1-3 min. For experiments with a long time, such as the EGFP experiment, Draq5 staining solution should be added to the medium during the experimental process (usually 0.5-3 h) before the addition of agonists and tinctures, and the concentration should be controlled at 1 μM.

Note: If the cells have been stained with other fluorescent dyes before Draq5 staining, pay attention to avoid light.

5. Stained cells can be analyzed directly without washing.

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.

US EVERBRIGHT INC.
Tel:0512-88965152
Web:www.useverbright.com/