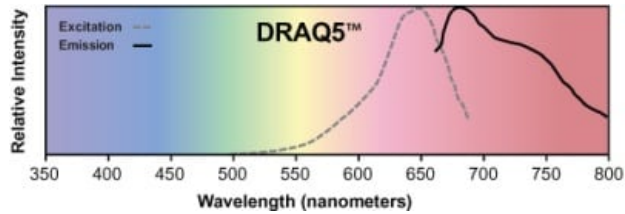


DRAQ5™ ab108410

★★★★★ [5 Abreviews](#) [53 References](#) [3 Images](#)

Overview

Product name	DRAQ5™
Tested applications	Suitable for: FM, Flow Cyt, ICC/IF
General notes	<p>DRAQ5™ is a cell permeable far-red fluorescent DNA dye that can be used in fixed or non-fixed/ live cells in combination with common labels such as GFP or FITC.</p> <p>As with any cell-permeant DNA intercalating probe, DRAQ5 may inhibit cell division in long-term assays and should be tested for any effect.</p> <p>DRAQ5 staining can be used in flow cytometry, live cell imaging and cell-based assays and the dye is highly compatible with standard protocols across many instrumentation platforms.</p> <p>The chemical name of DRAQ5 is <i>1, 5-bis[[2-(di-methylamino)ethyl]amino]-4, 8-dihydroxyanthracene-9, 10-dione</i>.</p> <p>The advantages of DRAQ5 staining include</p> <ul style="list-style-type: none">- convenient ready-to-use aqueous solution- rapid uptake into living cells, providing a high level of nuclear discrimination- no photobleaching effect- can be used in most cell types, eukaryotic and prokaryotic: mammalian, bacterial, parasitic, plant, etc.- no compensation needed with common FITC/GFP + PE combinations in flow cytometry- no RNase treatment required- no fluorescence enhancement upon DNA binding- compatible with optics of benchtop flow, laser scanning cytometers and non-UV laser scanning and lamp-based confocal microscopes <p>SPECTRAL PROPERTIES:</p> <p>Excitation</p> <p>647 nm line optimal (Ex_{max} 646 nm)</p> <p>488, 514, 568 and 633 nm lines, sub-optimal</p> <p>Two-photon excitation (1047 nm) and excitation dark (700-850 nm)</p> <p>Emission (instrument dependent):</p> <ul style="list-style-type: none">- 665 nm to infra-red max 681 nm / 697 nm intercalated with dsDNA)- minimal overlap with vis range e.g. GFP and FITC- Em. filters may include 695L, 715LP or 780 LP



Concentration: 5 mM

Properties

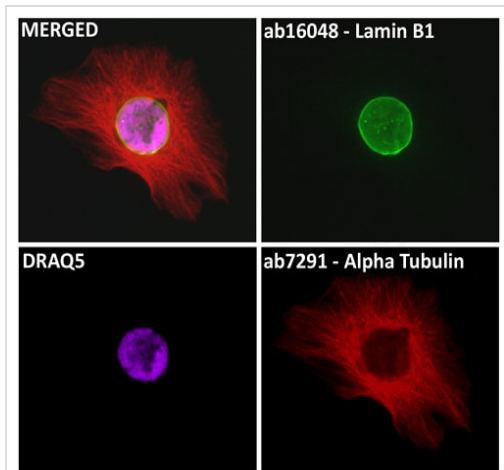
Form	Liquid
Storage instructions	Store at +4°C. Do Not Freeze. Store In the Dark.

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab108410 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

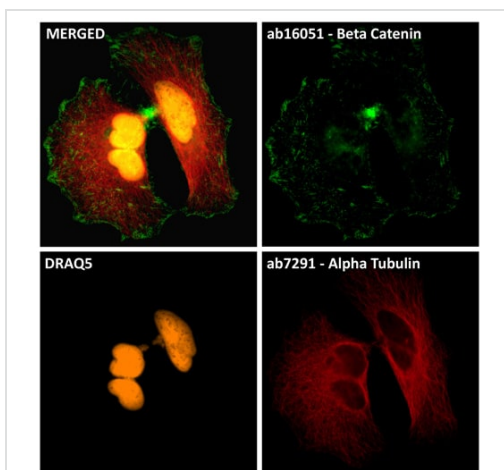
Application	Abreviews	Notes
FM		Use at an assay dependent concentration.
Flow Cyt		1/250 - 1/1000. For Gating of Nucleated cells = 5µM; For Cell Cycle Analysis = 20µM
ICC/IF		1/1000. For Cell-based assays, Immunofluorescence microscopy and In-Cell WB = 5µM It is highly recommended that the concentration and labelling conditions are carefully determined by each investigator for optimal performance in the assay of interest. For more specific information about the applications, please refer to the Protocol Booklet section.

Images



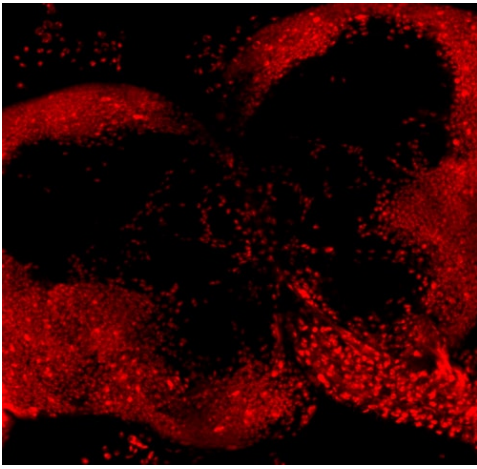
Immunocytochemistry/ Immunofluorescence -
DRAQ5™ (ab108410)

HeLa cells were stained with **Lamin B1 antibody - Nuclear Envelope Marker (ab16048)** and **alpha Tubulin antibody [DM1A] - Loading Control (ab7291)**. The cells were 100% methanol fixed (5 min) and then incubated in 1% BSA in 0.1% PBS-Tween for 1h to permeabilize the cells and block non-specific protein-protein interactions. The cells were then incubated with the primary antibodies (**ab16048** & **ab7291**) at 1µg/ml overnight at 4C. The secondary antibodies were **Goat polyclonal Secondary Antibody to Rabbit IgG - H&L (DyLight® 488), pre-adsorbed (ab96899)** (green) and **Goat polyclonal Secondary Antibody to Mouse IgG - H&L (DyLight® 594), pre-adsorbed (ab96881)** (red) used at 1/250 dilution for 1h at room temperature. 5µM DRAQ5 was added to the secondary antibody mixture to label nuclear DNA (pseudocolor purple).



Immunocytochemistry/ Immunofluorescence -
DRAQ5™ (ab108410)

HeLa cells were stained with **beta Catenin antibody (ab16051)** and **alpha Tubulin antibody [DM1A] - Loading Control (ab7291)**. The cells were 100% methanol fixed (5 min) and then incubated in 1% BSA in 0.1% PBS-Tween for 1h to permeabilize the cells and block non-specific protein-protein interactions. The cells were then incubated with the primary antibodies (**ab16051** & **ab7291**) at 1µg/ml overnight at 4C. The secondary antibodies were **Goat polyclonal Secondary Antibody to Rabbit IgG - H&L (DyLight® 488), pre-adsorbed (ab96899)** (green) and **Goat polyclonal Secondary Antibody to Rabbit IgG - H&L (DyLight® 594), pre-adsorbed (ab96899)** (red) used at 1/250 dilution for 1h at room temperature. 5µM DRAQ5 was added to the secondary antibody mixture to label nuclear DNA (pseudocolor orange).



DRAQ5™-stained nuclei in a adult *Drosophila* brain.

Immunocytochemistry/ Immunofluorescence -
DRAQ5™ (ab108410)

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