

### DRAQ7™ $\alpha$ b109202

★★★★★ [1 Abreviews](#) [29 References](#) [3 Images](#)

#### Overview

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<b>Product name</b>	DRAQ7™
<b>Tested applications</b>	<b>Suitable for:</b> FM, Flow Cyt, ICC/IF
<b>General notes</b>	<p>DRAQ7™ is a far-red fluorescent dye that <i>only</i> stains the nuclei in <b>dead</b> and permeabilized cells and can be used in combination with common labels such as GFP or FITC.</p> <p>DRAQ7 is the ideal tool to study dead or membrane-compromised cells because it does not enter intact, live cells. It is an ideal replacement for propidium iodide and 7-AAD, as is not excited by UV light and has no emission overlap with PE / PE homologues.</p> <p>Key features of DRAQ7 include:</p> <ul style="list-style-type: none"><li>Rapid staining of dsDNA/ nuclei of dead or permeabilized cells</li><li>Low photobleaching</li><li>It can be used in most cell types, eukaryotic and prokaryotic: mammalian, bacterial, parasitic, plant, etc ...</li><li>Non-toxic in long-term culture</li><li>Can be combined with "live" dyes</li><li>No compensation needed with common FITC/GFP + PE combinations in flow cytometry</li><li>No wash or RNase treatment needed.</li></ul> <p><b>SPECTRAL PROPERTIES</b></p> <p><b>Excitation:</b></p> <ul style="list-style-type: none"><li>633 and 647 nm line optimal (<math>Ex_{max}</math> 599 / 644 nm)</li><li>488, 514 and 568 nm lines, sub-optimal (only by flow cytometry)</li></ul> <p><b>Emission (instrument dependent):</b></p> <ul style="list-style-type: none"><li>665 nm to infra-red max 678 nm / 697 nm intercalated with dsDNA)</li><li>Minimal overlap with vis range e.g. GFP and FITC</li><li>Em. filters may include 695L, 715LP or 780 LP</li></ul> <p><b>Multi-wavelength imaging with UV / vis fluorochromes</b></p> <ul style="list-style-type: none"><li>No fluorescence enhancement upon DNA binding</li><li>Low photo-bleaching effect</li><li>Compatible with optics of flow, laser scanning cytometers and confocal and lamp-based fluorescence microscopes</li></ul>

#### Properties

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<b>Form</b>	Liquid
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## Storage instructions

Store at +4°C. Do Not Freeze. Store In the Dark.

## Applications

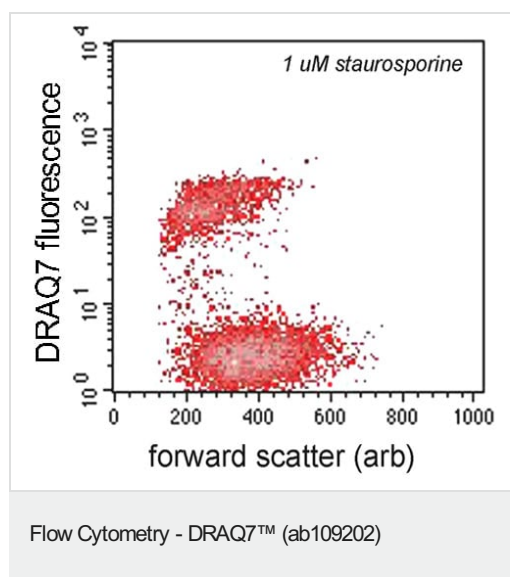
### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab109202 in the following tested applications.

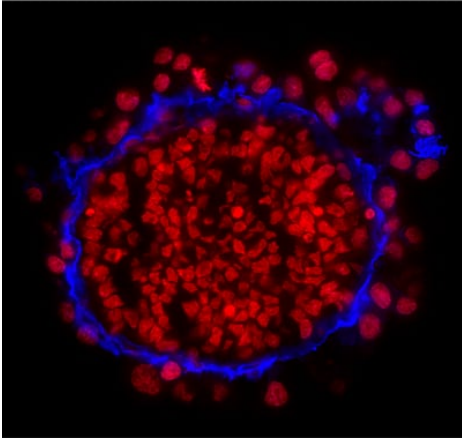
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
FM		Use at an assay dependent concentration.
Flow Cyt		1/100. (final concentration = 3µM)
ICC/IF		1/100. (final concentration = 3µM) 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.

## Images



Jurkat cells exposed to 1µM staurosporine for 24 hours show DRAQ7™ staining (top half of the plot). These cells have compromised membranes that allow entry of DRAQ7™ in the cells.



Immunohistochemistry (Frozen sections) -

DRAQ7™ (ab109202)

Courtesy of Dr. Shaohua Li, UMDNJ-Robert Wood Johnson Medical School

Sample: mouse embryonic stem cell-differentiated embryoid bodies (EBs)

Preparation:

Fix in 3%PFA in PBS for 30 min at RT

Incubate in 7.5% sucrose-PBS for 3h at RT

Incubate in 15% sucrose-PBS at 4 degree Celsius overnight

Embed the EBs in tissue-Tek OCT compound

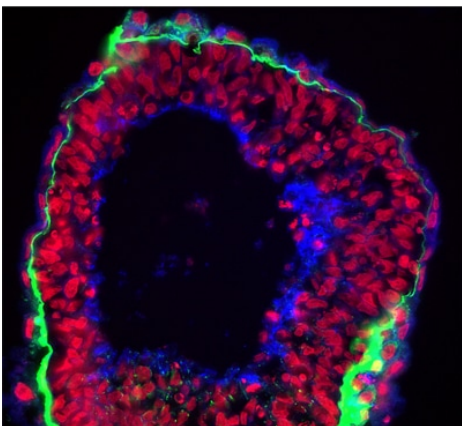
Cut frozen sections to 4-20 μm thickness

Primary antibody: Rabbit anti-laminin alpha 1, 1:400

Secondary antibody: Goat anti-rabbit IgG - H&L (AMCA)

**(ab123435)**

Nuclei were counterstained stained with DRAQ7™ (ab109202)



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Cut frozen sections to 4-20 μm thickness

Primary antibody: Rabbit anti-laminin alpha 1, 1:400

Secondary antibody: Goat polyclonal Secondary Antibody to Rabbit IgG - H&L (FITC) (**ab97050**), 1:200

F-actin was stained with CytoPainter F-actin staining kit (blue) (**ab112124**), 1:1000

Nuclei were counterstained stained with DRAQ7™, 1:1000

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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