

RedDot™1 Far-Red Nuclear Stain, 200X in Water

A far-red live cell nuclear stain similar to Draq5™.



Product attributes

Probe cellular localization	Nucleus
Assay type/options	DNA content/cell cycle profiling by flow cytometry, No-wash staining, Short term staining (<24h)
Detection method/readout	Fluorescence microscopy, Flow cytometry, Near-IR imager
Cell permeability	Membrane permeant
Colors	Far-red
Excitation/Emission	662 (broad)/694 nm (with DNA)
Concentration	200X in water
Storage Conditions	Store at -10 to -35 °C, Protect from light

Product Description

RedDot™1 is a far-red cell membrane-permeant nuclear dye similar to Draq5™. The dye is ideal for specifically staining the nuclei of live cells.

- Ideal for specifically staining the nuclei of live cells for short term imaging
- Highly thermostable and photostable, for convenient handling and demanding imaging applications
- Can be used for DNA content analysis by flow cytometry like Vybrant™ DyeCycle™ Ruby
- Can be used for normalization of In Cell Western® in fixed cells, similar to Draq5™/Sapphire®700
- $\lambda_{Ex}/\lambda_{Em} = 662/694$ nm (with DNA), for detection in the Cy®5 channel

RedDot™1 can be excited at a wide range of wavelengths between 488 nm and 647 nm, including the 488 nm laser for flow cytometry, and can be used for DNA content analysis by flow cytometry. While DAPI and Hoechst dyes show a strong preference for A-T rich regions, RedDot™1 is relatively insensitive to sequence base composition.

Choose the Right Dye for Your Application

Like Draq5®, RedDot™1 is toxic to cells within a few hours, and is recommended for short term staining experiments. For a low-toxicity far-red nuclear stain for live cells, see our [NucSpot™ 650](#) dye.

RedDot™1 can be used to stain live bacteria (gram-positive and gram-negative). Staining in live yeast is weak and not nuclear. See our [Cellular Stains Table](#) for more information on how our dyes stain various organisms.

RedDot™1 cannot be used for nuclear-specific staining in fixed cells. Please see [RedDot™2 \(cat# 40061\)](#), a spectrally similar dye designed for specific nuclear staining of fixed and permeabilized cells or selective nuclear staining of dead cells.

Please note: far-red dyes like RedDot™1 are not visible to the human eye, but must be imaged with a CCD camera or by confocal microscopy.

RedDot™1 and RedDot™2 Far-Red Nuclear Stains

Product	Catalog No.	Cell Permeability	Live/Fixed	Color (Ex/Em)	Applications
RedDot™1 Far-Red Nuclear Stain, 200X in Water	40060	Permeant	Live cells only	(Far-red) 662/694 nm	<ul style="list-style-type: none"> • Live cell nuclear stain comparable to Draq5™ • For microscopy, cell cycle analysis by flow cytometry • Can be used for In-Cell Western normalization
RedDot™2 Far-Red Nuclear Stain, 200X in DMSO	40061	Impermeant	Fixed/permeabilized cells or tissues	(Far-red) 665/695 nm	<ul style="list-style-type: none"> • Fixed cell nuclear stain • Greater nuclear specificity than Draq7™ • Selectively stains dead cells in unfixed cultures

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References

Download a list of curated [RedDot.Nc1 references](#).

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