NUCLEAR-ID® Red DNA stain

Cell permeable DNA stain that can be used for a wide range of applications

The NUCLEAR-ID® Red DNA Stain is a cell permeable dye, designed for use in a range of fluorescence detection technologies, in the discrimination of nucleated cells. It is resistant to photobleaching and is suitable for live-cell staining of nuclei. Also this dye provides a convenient approach for studying the induction and inhibition of cell cycle progression by flow cytometry. Potential applications of this reagent for live-cell studies are in the determination of cellular DNA content and cell cycle distribution, for the detection of variations in growth patterns, for monitoring apoptosis, and for evaluating tumor cell behavior and suppressor gene mechanisms.

Citations: 54 View Online »

Ordering Information

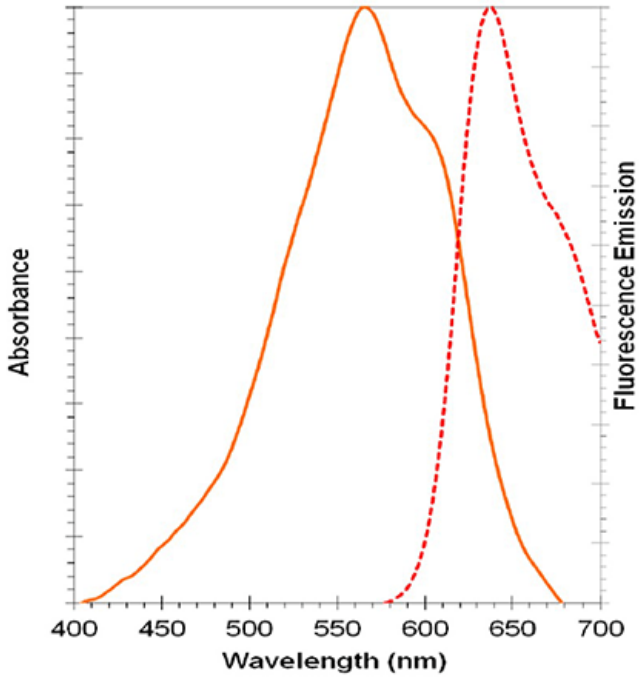
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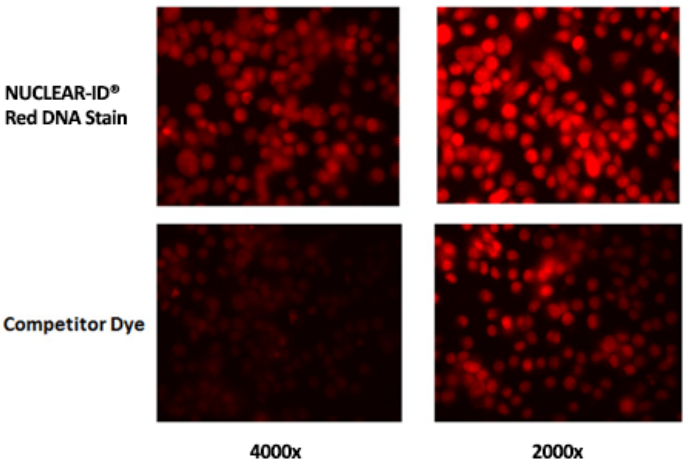
ENZ-52406	200µl

Manuals, SDS & CofA

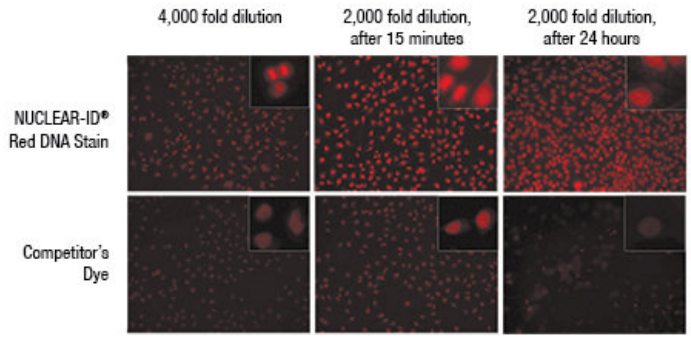
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- Far-red fluorescent specific DNA dye
- Stable and highly pure
- Live, permeable and fixed cells can be analyzed
- No photobleaching effect
- No RNase treatment is required
- GFP and FITC compatible
- UV laser source is not required for excitation
- Validated for a wide range of cell densitites
- Quick and easy to use!





NUCLEAR-ID Red DNA Stain requires lower concentration than competitor's dye to visualize dsDNA.HeLa cells were grown to ~60% confluency. Cells were stained with NUCLEAR-ID Red DNA Stain at a final concentration of 4000x or 2000x or a competitor's dye at the equivalent µM concentration at 37°C and gently washed post-staining. Cells were imaged at 15 min.



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NUCLEAR-ID Red DNA Stain is More Economical Than Competitor Dye

	IMAGING # OF ASSAYS (A)	COST OF ASSAY	NUCLEATED CELL GATING # OF ASSAYS (B)	COST OF ASSAY	LIVE CELL CYCLE ANALYSIS # OF ASSAYS (C)	COST OF ASSAY
NUCLEAR-ID Red DNA Stain	8,000	$0.036 **Savings >75%**	800	$0.368 **Savings 55%**	200	$1.48 **Savings >50%**
Competitor Dye	2,000	$0.163	400	$0.818	100	$3.27

Relative costs of using NUCLEAR-ID Red DNA in comparison to competitor dye in various applications: (A) Imaging (visualization), (B) Nucleated Cell Gating (flow cytometry) and (C) Live Cell Cycle analysis using flow cytometry. Dilutions can vary depending on cell strain and cell concentration.Notes:Assumes staining of a 100 µL staining volumeAssumes staining of a 500 µL cell suspension volumeAssumes a staining of 500 µL cell suspension volume

Handling & Storage

Handling	Protect from light. Avoid freeze/thaw cycles.
Short Term Storage	-20°C
Long Term Storage	-80°C
Shipping	Blue Ice

Regulatory Status

RUO - Research Use Only

Product Details

Appearance	Frozen liquid.
Application	Flow Cytometry, Fluorescent detection
Emission Maximum	650nm
Excitation Maximum	566nm
Purity	≥93% (HPLC)
Quality Control	1. Absorption peak of NUCLEAR-ID® Red dye: λ_{max} = 566 ± 4 nm 2. % purity of NUCLEAR-ID® Red dye by HPLC: ≥93%
Quantity	200µl
Technical Info / Product Notes	The NUCLEAR-ID® Red DNA Stain is a member of the CELLESTIAL® product line, reagents and assay kits comprising fluorescent molecular probes that have been extensively benchmarked for live cell analysis applications. CELLESTIAL® reagents and kits are optimal for use in demanding imaging applications, such as confocal microscopy, flow cytometry and HCS, where consistency and reproducibility are required.

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