



Description: ViaStain™ DAPI

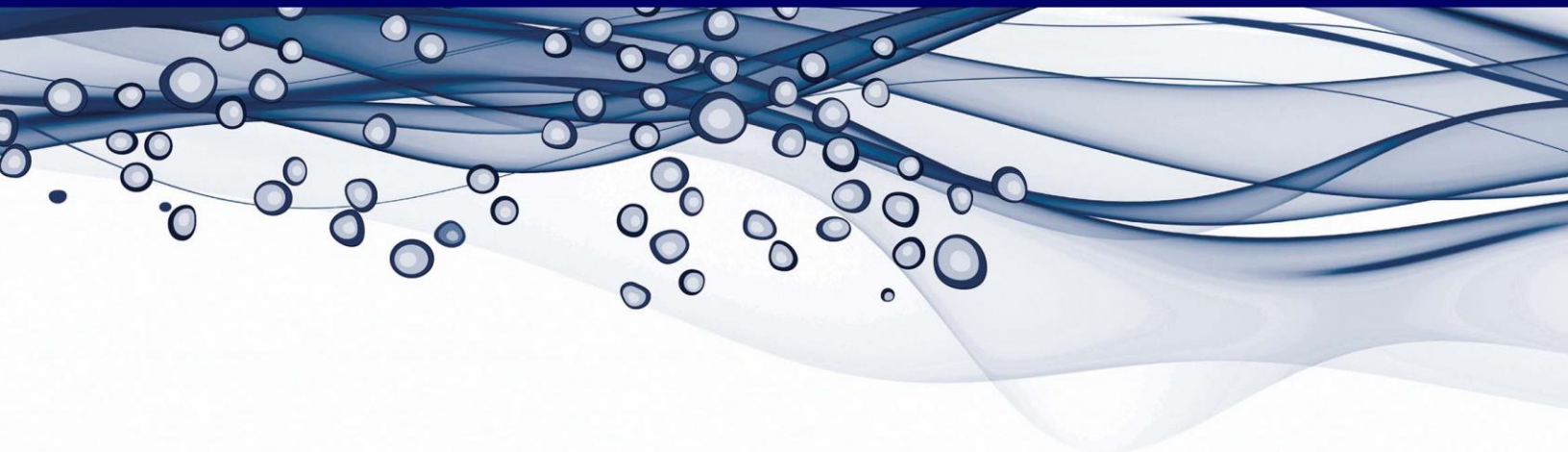
Product Number:

Full Kit: CS1-0127-2mL

Sample Kit: CS1-0127-S (Not available for purchase)

Instrument (s): Celigo, Vision CBA, Spectrum

Product Insert: ViaStain™ DAPI



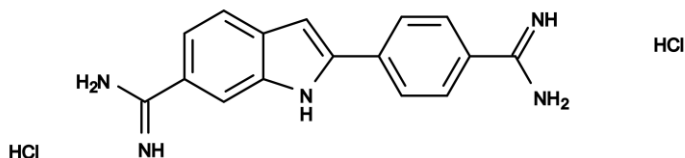
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Description

DAPI (4,6-Diamidino-2-phenylindole, dihydrochloride) is a fluorescent dye that binds to the minor groove of double stranded DNA. It is used extensively in fluorescence microscopy. DAPI can be used to detect dead cells since it does not readily pass through intact cell membranes like Hoechst. However, DAPI will enter live cells if incubated for an extended period of time. For fluorescence microscopy, DAPI is excited with ultraviolet light. When bound to double-stranded DNA its absorption maximum is at 358 nm and its emission maximum is at 461 nm. DAPI's blue emission is convenient for multiplexing assays since there is very little fluorescence overlap between DAPI and green-fluorescent molecules like fluorescein and green fluorescent protein (GFP), or red-fluorescent stains like Texas Red.



Molecular Weight: 350.25

Excitation = 358 nm; Emission = 461 nm

Concentration: 10 mM in water

Materials

Materials Supplied

1. CS1-0127-2mL
2. CS1-0127-S (10 µL)

Materials Required

1. Phosphate Buffer Saline (PBS)
2. Pipette
3. 96 well plates
4. Celigo 4 or 5 channel or Vision CBA or Spectrum

Procedure for one 96-well plate on Celigo

Procedure for Staining and Imaging of Adherent and Suspension Cells:

- 1.1. Plate cells in 96-well at 10,000 cells/well in a volume of 100 μ L/well
- 1.2. Incubate overnight in 37°C 5% CO₂
- 1.3. Into 10 mL of 1x PBS buffer add 8 μ L of stock 10 mM DAPI to make a 2x staining solution
- 1.4. Pipet 100 μ L of the 2x staining solution from step 1.3 into each well containing 100 μ L of media and cells
- 1.5. Incubate for 30 minutes at in 37°C 5% CO₂
- 1.6. Image on Celigo using the defined imaging conditions below
- 1.7. Image on Celigo with Expression Analysis: Target 1+2 Independent

Instrument	Channel	Illumination	Exposure	Stain Concentration
Celigo	Target 1	Bright field	AEAG (auto)	N/A
Celigo	Target 2 (HWAF)	Blue	50,000 μ s	4 μ M

Procedure for Cellometer Vision CBA or Spectrum

Procedure for Staining and Imaging of Adherent and Suspension Cells:

- 1.1. Trypsinize adherent cells, spin down at 1200 rpm for 5 minutes and decant media
 - 1.1.1. If cells are a suspension cell line, spin down and decant the media
- 1.2. Re-suspend cells in 950 μ L of PBS
- 1.3. Stain cells with DAPI at a final [10 μ M]. First make an intermediary concentration of DAPI by pipetting 10 μ L of DAPI into 490 μ L of PBS producing a concentration of 200 μ M – Tube A
- 1.4. From Tube A pipette 50 μ L of diluted DAPI into 950 μ L of cells in PBS, producing the final [10 μ M]
- 1.5. Incubate cells for 30 minutes in the dark at room temperature
- 1.6. After staining, load 20 μ L of cells into a counting chamber and image using Cellometer Vision CBA
- 1.7. On Cellometer Vision CBA: Make sure Fluorescent Optic Module (FOM) VB-450-302 is installed
- 1.8. On Cellometer Spectrum: Make sure Fluorescent Optic Module (FOM) S1-452-365 is installed
- 1.9. Image the sample based on the parameters shown below

Instrument	Channel	Illumination	Exposure	Optics Module	Stain Concentration
Vision CBA	Ch2	Blue	450 ms	VB-450-302	10 μ M
Spectrum	Ch2	Blue	300 ms	S1-452-365	10 μ M

Storage and Handling

Store ViaStain™ DAPI between -16°C and -24°C. Avoid repeated freeze/thaw cycles. Please consult the Safety Data Sheet for more safety information, found on www.nexcelom.com/Products.

Warranty

This product is for RESEARCH USE ONLY and is not approved for diagnostic or therapeutic use. Product is warranted to meet the specifications outlined in the Certificate of Analysis when stored and used according to the manufacturer's instructions. No other warranty, expressed or implied (such as merchantability, fitness for a particular purpose, or non-infringement) is granted. Warranty is valid for 6 months from date of receipt.

Warranty will be void if product is stored incorrectly, the recommended protocol is not followed, or the product is used for a different application.

Ordering Information

For orders shipping to destinations in the United States:

- When ordering with a Purchase order
 - Fax a copy of your order to 978-327-5341
 - Email a copy of your order to sales@nexcelom.com
- When ordering with a Credit Card
 - Visit www.shop.nexcelom.com and place your order

For orders shipping to destinations outside the United States:

- Contact your local distributor or Nexcelom Representative to place your order