

## DAPI, blue fluorescent nucleic acid stain

<http://cn.lumiprobe.com/p/dapi-nucleic-acid-stain>

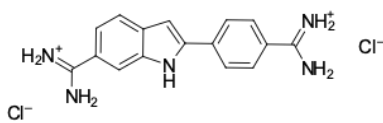
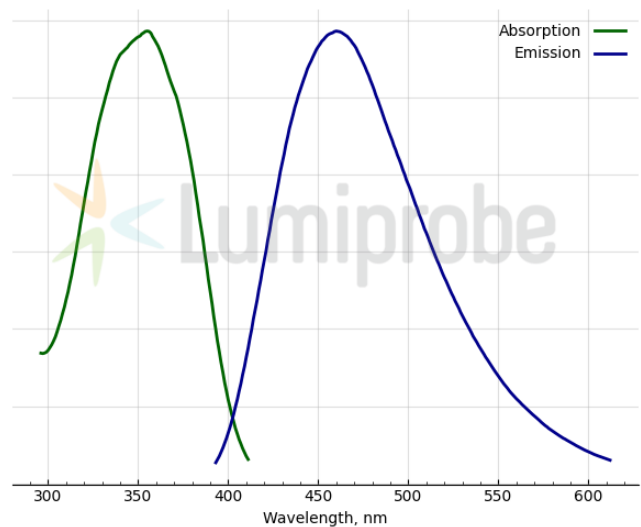
DAPI (4',6-diamidino-2-phenylindole) is a blue-emitting fluorescent dye that binds strongly to adenine-thymine-rich regions in DNA. It is used extensively in fluorescence microscopy, flow cytometry for chromosome staining and as a nuclear counterstain. DAPI is generally used to stain fixed cells since the dye is membrane impermeant, although the dye can enter live cells when used at high concentrations.

When bound to double-stranded DNA, DAPI exhibits ~20-fold enhancement of fluorescence with an absorption maximum at 355 nm and emission maximum at 460 nm. DAPI also binds to RNA, though it is not as strongly fluorescent. When bound to RNA, its emission spectrum shifts to around 500 nm.

There is a slight fluorescence overlap between DAPI and green-fluorescent molecules like fluorescein and GFP. Use spectral unmixing if extremely precise image analysis is required.

DAPI is several times more sensitive than ethidium bromide for staining DNA in agarose gels. It may be used for photofootprinting DNA and detecting annealed probes in blotting applications by specifically visualizing the double-stranded complex. Also, DAPI staining is a sensitive and specific detection method for mycoplasma.

The working concentration of DAPI for staining eukaryotic cells is usually 1 µg/mL. Still, it depends on the cell type and density, so the exact dilution of the dye should be determined experimentally.



外观:

分子 350.25

量:

CAS 28718-90-3

编号:

分子 C<sub>16</sub>H<sub>17</sub>Cl<sub>2</sub>N<sub>5</sub>

式:

溶解

度:

质量

控制:

储存

条件:

法律声明: 本产品仅供研究目的提供和销售。 本产品并未经过食品、药品、医疗器械、化妆品等领域的安全性和效力测试, 且未经明示或暗示授权用于其他任何用途, 包括但不限于体外诊断、人类或动物用途, 以及商业用途。

激发/ 355

吸收

极大

值,

纳米:

$\epsilon$ , 摩 28800

尔吸  
光系  
数  $m$

发射 460

极大  
值,  
纳米: