

DAPI Dilactate

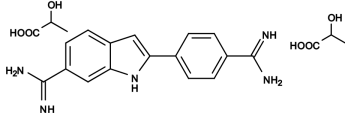
Catalog number: 17509

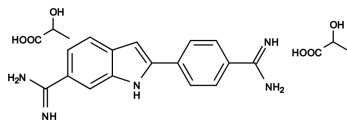
Unit size: 25 mg

Product Details

Storage Conditions	Freeze (<15 °C), Minimize light exposure
Expiration Date	12 months upon receiving

Chemical Properties

Appearance	Yellow solid
Molecular Weight	457.48
Soluble In	Water
Chemical Structure	



Spectral Properties

Excitation Wavelength	359 nm
Emission Wavelength	457 nm

Applications

DAPI is a fluorescent stain that binds strongly to DNA. It is used extensively in fluorescence microscopy. Since DAPI passes through an intact cell membrane, it can be used to stain live cells besides fixed cells. 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. One drawback of DAPI is that its emission is fairly broad. DAPI also binds to RNA although it is not as strongly fluorescent as it binds to DNA. Its emission shifts to around 500 nm when bound to RNA. 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. Besides labeling cell nuclei, DAPI is also used for the detection of mycoplasma or virus DNA in cell cultures. DAPI dilactate has improved water solubility compared to DAPI HCl salt.