

DAPI in the Classroom

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The 4', 6-diamidino-2-phenylindole, or DAPI, stain is a fluorescent stain that allows visualization of DNA in living and fixed cells by binding to the AT-rich regions of DNA. DAPI absorbs ultraviolet light at a wavelength of about 358 nm, and in doing so, emits light at a wavelength of 461 nm—blue light visible through a blue or cyan filter on the microscope. This allows for the quantification of nuclear bodies within cell samples. Though a useful tool for scientists to screen organisms, DAPI staining can be problematic for students in the university lab classrooms, some of which may include pink blotches on the slide, DAPI being unable to penetrate the cuticle of organisms such as *C. elegans*, or what students tend to have the most problems with, loss of sample size

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