

Intended Use:

For In Vitro Diagnostic Use.

This product is intended to be used as a nuclear counter stain that forms a blue fluorescent (Ex/Em 359/461nm) complex with DNA.

Description:

DAPI binds strongly to A-T rich regions in DNA. When bound to double-stranded DNA DAPI has an absorption maximum at a wavelength of 358 nm (ultraviolet) and its emission maximum is at 461 nm (blue). Therefore for fluorescence microscopy DAPI is excited with ultraviolet light and is detected through a blue/cyan filter. It is used extensively in fluorescence microscopy. DAPI can pass through an intact cell membrane therefore it can be used to stain both live and fixed cells, though it passes through the membrane less efficiently in live cells and therefore the effectiveness of the stain is lower.

Supplied As:

Catalog #	Contains
R2112-1	1 mL

DAPI is a ready to use solution containing 1µg/mL of 4', 6 diamidino-2-phenylindole, dihydrochloride in TRIS buffered saline and 0.01% Sodium Azide preservative (MUTAGEN).

Storage:

This product is stable when stored at 4 – 8°C. DO NOT FREEZE. DO NOT STORE AT ROOM TEMPERATURE. Refer to product label for expiration date. Store in the dark.

Material Safety Data:

When handling this material Standard Laboratory Practices should be followed. This material's chemical, physical and toxicological properties have not been thoroughly investigated. Contains Sodium Azide as a preservative. Although, the quantity of Sodium Azide (0.01%) is very small, measures should be taken to avoid skin and eye contact, inhalation and ingestion. Sodium Azide (NaN₃) may react with lead and copper plumbing to form potentially explosive metal oxides. Upon disposal, flush with a large volume of water to prevent azide build-up.

References:

1. Kapuscinski, J., 1995. DAPI: a DNA-specific fluorescent probe. *Biotech Histochem* 70(5): 220-233.
2. Zink, D., et al., 2003. Visualizaing Chromatin and Chromosomes in Living Cells. *Methods* 29(1): 42-50.