

## Hoechst 33342 amine

Catalog Number: 17671

Unit Size: 1 mg

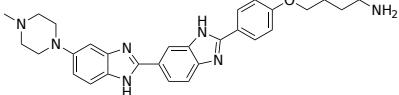
### Product Details

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Storage Conditions	Freeze (< -15 °C), Minimize light exposure
Expiration Date	24 months upon receiving

### Chemical Properties

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Appearance	Solid yellowish
Molecular Weight	495.63
Soluble In	DMSO
Chemical Structure	 The chemical structure of Hoechst 33342 amine is a complex organic molecule. It features a central purine ring system. Attached to the purine ring is a 4-(4-aminobutyl)phenyl group. This group consists of a phenyl ring connected to a nitrogen atom, which is further connected to a 4-aminobutyl chain (a butyl group with an amino group at the 4-position).

### Spectral Properties

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Excitation Wavelength	352 nm
Emission Wavelength	454 nm

### Applications

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Hoechst 33342 amine is an excellent building block for developing site-specific nucleic acid probes. It can be readily conjugated to carbonyl-containing biomolecules (such as antibodies, peptides and oligos). Hoechst 33342 is a DNA-specific dye that binds to the minor groove of double-stranded DNA. It emits blue fluorescence when bound to DNA. Its excitation maximum is around 350 nm, and the emission maximum is approximately 460 nm. Its ability to readily penetrate live cell membranes makes it suitable for staining live cells. This property allows researchers to monitor nuclear morphology and DNA content in living cells. Hoechst 33342 is commonly used in fluorescence microscopy to visualize the nucleus of cells.