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## Hoechst 33342

25 mg

**For Research Use Only. Not for Use in Diagnostic Procedures.**

### Applications:

IF-IC, FC-FP

### Description

Hoechst 33342 (bisBenzimide H33342 trihydrochloride) is supplied as a lyophilized powder in 25 mg units. It can be used to examine cellular DNA in most fluorescent applications.

### Background

Hoechst 33342 is a specific fluorescent DNA stain that binds within the minor groove of double-stranded AT-rich regions. This stain can be used on both live and fixed cells (1).

### Fluorescent Properties

Free dye excitation maximum = 340 nm

Free dye emission maximum = 510 nm

DNA complex excitation maximum = 355 nm

DNA complex emission maximum = 465 nm

### Molecular Formula

$C_{27}H_{28}N_6O_3(HCl)_3(H_2O)$

### Storage

The lyophilized powder is stable for 1 year if kept below 0°C with desiccant. Aqueous solutions are stable for at least 1 month if kept in the dark between 2-8°C.

### Directions for Use

This product is soluble up to 50 mg/ml in deionized water or dimethylformamide yielding a clear yellow solution. Heating and/or sonication may be required. For standard fluorescence based assays, Hoechst 33342 stock solutions should be diluted in phosphate-buffered saline or mounting medium to a final working concentration of 1 µg/ml.

### Background References

1. Portugal, J. and Waring, M.J. (1988) *Biochim Biophys Acta* 949, 158-68.

### Applications Key

**IF-IC:** Immunofluorescence (Immunocytochemistry) **FC-FP:** Flow Cytometry (Fixed/Permeabilized)

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