

Hoechst 33342

✓ 25 mg

Orders ■ 877-616-CELL (2355)
orders@cellsignaling.com

Support ■ 877-678-TECH (8324)
info@cellsignaling.com

Web ■ www.cellsignaling.com

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For Research Use Only. Not For Use In Diagnostic Procedures.

Applications	Species Cross-Reactivity*
IF-IC, IF-F, IF-P, F	All

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

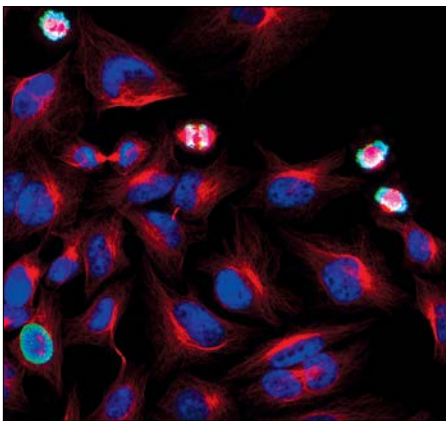
DNA complex emission maximum = 465 nm

Molecular Formula: $C_{27}H_{28}N_6O_3(HCl)_3(H_2O)$ **Background References:**

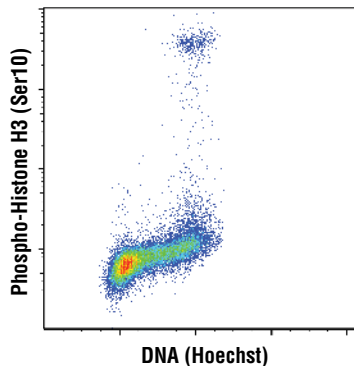
(1) Portugal, J. and Waring, M.J. (1988) *Biochim Biophys Acta* 949, 158-68.

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.



Immunofluorescent analysis of HeLa cells using α -Tubulin (DM1A) Mouse mAb #3873 (red) and Phospho-Histone H3 (Ser10) (D2C8) XP™ Rabbit mAb #3377 (green). Blue pseudocolor = Hoechst 33342 (fluorescent DNA dye).



Flow cytometric analysis of Jurkat cells using Phospho-Histone H3 (Ser10) (D7N8E) XP® Rabbit mAb #53348 and Hoechst 33342 (DNA content). Anti-rabbit IgG (H+L), F(ab')₂ Fragment (Alexa Fluor® 488 Conjugate) #4412 was used as a secondary antibody.