

# Certificate of Analysis

**Product Name:** Hoechst 33258

**Catalog No.:** 5824

**Batch No.:** 1

CAS Number: 23491-45-4

EC Number: 245-690-6

IUPAC Name: 4-[6-(4-Methyl-1-piperazinyl)[2,6'-bi-1*H*-benzimidazol]-2'-yl]phenol trihydrochloride

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:**  $C_{25}H_{24}N_6O \cdot 3HCl \cdot 2H_2O$

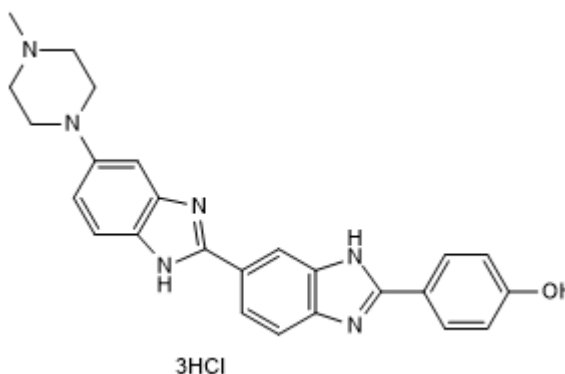
**Batch Molecular Weight:** 569.91

**Physical Appearance:** Yellow solid

**Solubility:** DMSO to 20 mM  
water to 100 mM

**Storage:** Store at -20°C

**Batch Molecular Structure:**



## 2. ANALYTICAL DATA

**HPLC:** Shows 99.8% purity

**<sup>1</sup>H NMR:** Consistent with structure

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

Carbon Hydrogen Nitrogen

Theoretical 52.69 5.48 14.75

Found 53.05 5.3 14.72

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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**Description:**

Fluorescent dye. Binds the minor groove of DNA at A and T rich regions. Can be used as indicator of apoptosis.

**Physical and Chemical Properties:**

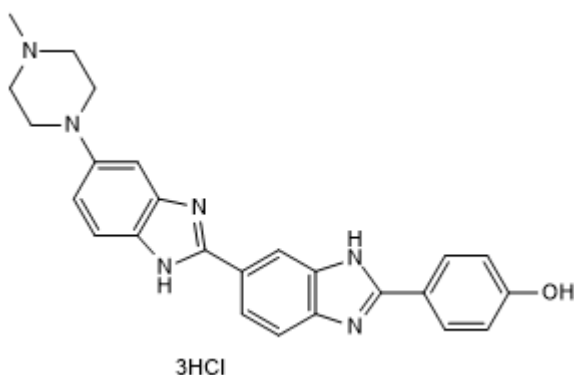
Batch Molecular Formula: C<sub>25</sub>H<sub>24</sub>N<sub>6</sub>O.3HCl.2H<sub>2</sub>O

Batch Molecular Weight: 569.91

Physical Appearance: Yellow solid

**Minimum Purity:** >98%

**Batch Molecular Structure:**



**Storage:** Store at -20°C

**CAUTION** - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

**Solubility & Usage Info:**

DMSO to 20 mM

water to 100 mM

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

**SOLIDS:** Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

**SOLUTIONS:** We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**References:**

**Oberhammer et al** (1993) Apoptotic death in epithelial cells: cleavage of DNA to 300 and/or 50 kb fragments prior to or in the absence of internucleosomal fragmentation. *EMBO J.* **12** 3679. PMID: 8253089.

**Jin and Breslauer** (1988) Characterization of the minor groove environment in a drug-DNA complex: bisbenzimidazole bound to the poly[d(AT)].poly[d(AT)]duplex. *Proc.Natl.Acad.Sci.U.S.A.* **85** 8939. PMID: 2461559 .

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