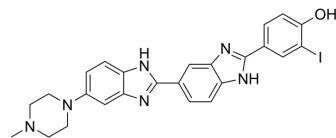


## Hoechst 33342 analog 2

Cat. No.:	HY-15630
CAS No.:	106050-84-4
Molecular Formula:	C <sub>25</sub> H <sub>23</sub> IN <sub>6</sub> O
Molecular Weight:	550.39
Target:	Fluorescent Dye
Pathway:	Others
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : ≥ 57 mg/mL (103.56 mM)

\* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	1.8169 mL	9.0845 mL	18.1689 mL
	5 mM	0.3634 mL	1.8169 mL	3.6338 mL
	10 mM	0.1817 mL	0.9084 mL	1.8169 mL

Please refer to the solubility information to select the appropriate solvent.

### BIOLOGICAL ACTIVITY

#### Description

Hoechst 33342 analog 2 is a marker dye in Hoechst series. Hoechst is A live nuclear marker dye. Hoechst binds to the grooves in the DNA double strand, which tends to be A/ T-rich DNA strand. Although it binds to all nucleic acids, the A/ T-rich double strand DNA significantly enhances fluorescence intensity Therefore,Hoechst dye can be used for living cell labeling. The fluorescence intensity of Hoechst dye increases with the increase of pH of solution<sup>[1]</sup>.

#### In Vitro

##### General Protocol

##### Preparation of Hoechst working solution

##### 1.1 Preparation of the stock solution

Dissolve 10 mg of in 5 mL DMSO

Note: It is recommended to store the stock solution at 4℃ or -20℃ away from light and avoid repetitive freeze-thaw cycles.

##### 1.2 Preparation of Hoechst working solution

Dilute the stock solution in serum-free cell culture medium or PBS to obtain final concentration 10 μg/mL Hoechst working solution.

Note: Please adjust the concentration of Hoechst working solution according to the actual situation.

##### 1.Cell staining

##### 2.1 Suspension cells 6-well plate

- a. Centrifuge at 1000 g at 4°C for 3-5 minutes and then discard the supernatant. Wash twice with PBS, 5 minutes each time. The cell density is  $1 \times 10^6$ /mL.
- b. Add 1 mL of working solution, and then incubate at room temperature for 3-10 minutes.
- c. Centrifuge at 400 g at 4°C for 3-4 minutes and then discard the supernatant.
- d. Wash twice with PBS, 5 minutes each time.
- e. Resuspend cells with serum-free cell culture medium or PBS. Observation by fluorescence microscopy or flow cytometry.

#### 2.2 Adherent cells

- a. Culture adherent cells on sterile coverslips.
- b. Remove the coverslip from the medium and aspirate excess medium.
- c. Add 100  $\mu$ L of working solution, gently shake it to completely cover the cells, and then incubate at room temperature for 3-10 minutes.
- d. Wash twice with medium, 5 minutes each time. Observation by fluorescence microscopy or flow cytometry.

#### Precautions

1. Please adjust the concentration of Hoechst working solution according to the actual situation.
  2. This product is for R&D use only, not for drug, household, or other uses.
  3. For your safety and health, please wear a lab coat and disposable gloves to operate.
- MCE has not independently confirmed the accuracy of these methods. They are for reference only.

## REFERENCES

[1]. Chazotte B. Labeling nuclear DNA with hoechst 33342. Cold Spring Harb Protoc. 2011 Jan 1;2011(1):pdb.prot5557.

**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA