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## DATASHEET

Hoechst 33342 Staining Solution (10mg/ml)

### Product overview

<b>Name</b>	Hoechst 33342 Staining Solution (10mg/ml)
<b>Cat No</b>	HB9888
<b>Alternative names</b>	H33342, Bisbenzimidazole H 33342
<b>Biological description</b>	10mg/ml staining solution. Blue fluorescent DNA stain that is commonly used in fluorescent microscopy and frequently used to stain nuclei and is cell permeable. Can be used on both live and fixed cells. <b>Solid</b> powder form in 50mg and 100mg also available.
<b>Biological action</b>	Dyes & stains
<b>Description</b>	Blue fluorescent DNA stain. Nuclear stain. 10mg/ml staining solution in water. <b>Solid</b> also available in 50mg and 100mg.

### Images

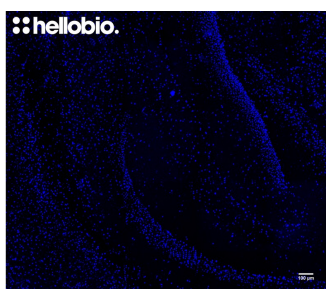


Fig1. Hoechst 33342 staining in mouse hippocampus. Hoechst 33342 is a DNA binding dye commonly used to label cell nuclei in immunofluorescence experiments. Hoechst 33342 from Hello Bio labels cell nuclei at 1µg/ml. For protocol see #Protocol 1 in application notes below.

### Biological Data

<b>Application notes</b>	<b>#Protocol 1: Hoechst 33342 staining of mouse brain sections.</b> <ul style="list-style-type: none"><li>• 400µm mouse brain sections were cut using a vibratome and were incubated in carbogen bubbled artificial cerebral spinal fluid (aCSF).</li><li>• Sections were incubated in 1µg/ml Hoechst 33342 in aCSF for 20 minutes at 37°C before being washed for 10 minutes in aCSF.</li><li>• Sections were imaged on a Leica SP8 AOBS confocal laser scanning microscope using the 405nm laser line.</li></ul>
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### Solubility & Handling

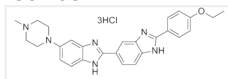
<b>Storage instructions</b>	-20°C
<b>Important</b>	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use

### Chemical Data

<b>Chemical name</b>	2-(4-ethoxyphenyl)-6-[6-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]-1H-benzimidazole
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**Molecular Weight**  
**Chemical structure**

561.93



**Molecular Formula**  
**CAS Number**

$C_{27}H_{28}N_6O \cdot 3HCl$   
875756-97-1

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## References

### Phototoxicity of Hoechst 33342 in time-lapse fluorescence microscopy.

Purschke M et al (2010) Photochemical & photobiological sciences : Official journal of the European Photochemistry Association and the European Society for Photobiology 9

**PubMedID** [20931137](#)

### Analyzing Cell Death by Nuclear Staining with Hoechst 33342.

Crowley LC et al (2016) Cold Spring Harbor protocols 2016

**PubMedID** [27587774](#)

### Hoechst 33342: the dye that enabled differentiation of living X-and Y-chromosome bearing mammalian sperm.

Garner DL (2009) Theriogenology 71

**PubMedID** [18952273](#)

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