

NH<sub>2</sub>

CH<sub>2</sub>CH<sub>3</sub>

Br<sup>-</sup>

# **Ethidium Bromide** Nucleic acid stain

#### **Product Description**

Chemical name:	Ethidium Bromide Solution, 10mg/mL	Ethidium Bromide S	olution dropper, 0.625mg/mL
Catalog Number.	<b>UP89244B</b> , 10mL	<b>32790B</b> , 5mL	~
		<b>32790C</b> , 15mL	
Structure / CAS :	C <sub>21</sub> H <sub>20</sub> BrN <sub>3</sub> ; CAS: 1239-45-8		
Molecular Weight:	394.32g/mol		
			H <sub>2</sub> N
Storage:	Room temperature (solution) or 4°C (solu DO NOT FREEZE. Protect from light.	ution).	

#### **Directions for use**

Uptima Ethidium Bromide is a highly pure, DNase/RNase free product graded for biotech and molecular biology applications. It is available as a powder and as solutions that reduces exposure to this hazardous material. Our solutions are prepared from high purity grade Ethidium Bromide in ultra pure water at 0.625 and 10mg/mlL.

The 0.625mg/mL ready-to-use concentration is provided in a dropper bottle for added safety and convenience, to prepare solutions, stains and gels, minimizing your exposure to this hazardous compound, while maintaining consistent results. It suits perfectly to agarose gel staining, adding the simplicity of one drop per 50mL of gel yielding the recommended concentration:

Simply add one drop of the Ethidium Bromide solution per 50mL agarose gel solution (before gelation) and cast your gel as usual. each drop contains 25µg of Ethidium Bromide, so the final concentration of Ethidium Bromide will be 0.5µg/mlL, the recommended concentration for electrophoresis of nucleic acids.

For larger gels, simply add an additional drop for each additional 50mL gel solution.

For those who wish to run their gels with Ethidium Bromide in the running buffer, or stain their gels following electrophoresis, the same dilutions apply: one drop per 50mL solution.

This solution is available in a 5mL non-breakable dropper bottle which is sufficient for about 125 x 50 mL-gels, and in 15mL size.

The standard 10mg/mL stock solution provides an economic stock solution. Beside the 5mL regular size, please feel free to ask for custom size or packaging.

EtBr, as Propidium Iodide (PI), is a phenanthridinium DNA intercalator. It is largely used for nucleic acid staining after gel electrophoresis, but also in fluorescence microscopy, confocal laser-scanning microscopy, flow cytometry and fluorometry (excited with mercury or xenonarc lamps or with the argon-ion laser). One dye binds in a sequence-random manner per 4–5 base pairs of DNA, eliciting a 30-40 fold fluorescence enhancement. It is membrane impermeant, and bind also to RNA.

#### **References**

Colin D. & Monteil H., Control of the Oxidative Burst of Human Neutrophils by Staphylococcal Leukotoxins, Infection and Immunity, p. 3724-3729, Vol. 71, No. 7 (2003) Article

Marsollier L. et al., Aquatic Insects as a Vector for Mycobacterium ulcerans, Applied and Environmental Microbiology, p. 4623-4628, Vol. 68, No. 9 (2002) Article

Roye O. et al., Dermal Endothelial Cells and Keratinocytes Produce IL-7 In Vivo After Human Schistosoma mansoni Percutaneous Infection, The Journal of Immunology, 161: 4161-4168 (1998) Article

## **Related products**

- Ethidium Bromide derivatives are available, dedicated to specific applications, including :
- DihydroEthidium <u>#FP-52492A</u> that is cell permeant and needs to be reduced,
- Ethidium homodimer-1 <u>#FP-25810A</u>, which much strongly bind to dsDNA, ssDNA, RNA and oligonucleotides,
- Ethidium homodimer-2 <u>#FP-67125A</u>, that has preferential affinity and fluorescence when bound to DNA than bound to RNA
- Ethidium monoazide, Br <u>#FP-48256A</u>, which selectively labels DNA in dead cells even mixed to living cells
- Propidium iodide (PI) <u>#FP-31238B</u>, closely related to Ethidium Bromide, commonly used to selectively stain dead cells in a cell population and also used as a nuclear or chromosome counterstain in multicolour fluorescent imaging.
- Other Nucleic acids stains and counter stains: DAPI / Hoechst, 7-AAD, Acridine Orange

### **Ordering information**

Catalog size quantities and prices may be found at <u>www.interchim.com</u>. Please inquire for higher quantities (availability, shipment conditions).

For any information, please ask: Uptima / Interchim; Hotline: +33 4 70 03 73 06

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