

Product Information

Ethidium Homodimer I (EthD-I)

Catalog Number

40010: 1 mg solid
40014: 0.5 mL (2 mM in DMSO)

Storage and Handling

The solid is soluble in water or DMSO. Store the solid and the solution at 4°C, desiccated and protected from light. Product is stable for at least 5 years from date of receipt when stored as recommended. Ethidium Homodimer I dye binds to nucleic acids. EthD-I is a known potential mutagen. It should be handled and disposed using universal laboratory safety precautions.

Molecular Information: C₄₆H₅₀Cl₄N₈

CAS number: 61926-22-5

Molecular Weight: 857

Color and Form: Red solid

Solubility: Soluble in water or DMSO

Absorption/Emission: 527/624 nm* (with DNA)

*Ethidium Homodimer I also has a strong UV absorbance peak at 279 nm

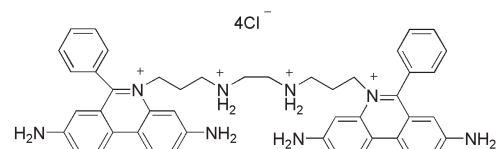


Figure 1. Ethidium Homodimer I (EthD-I)

Product Description

Ethidium Homodimer I is a high affinity fluorescent nucleic acid stain. It binds to both DNA and RNA in a sequence-independent manner and with a >30-fold fluorescence enhancement. The DNA binding of each Ethidium Homodimer I covers four base pairs and is believed to occur by intercalation. Because the dye is highly positively charged, it can not cross cell membranes to stain living cells. The dye is useful for detecting nucleic acids in solution or for selectively staining dead cells with damaged plasma membranes in all cell types, including mammalian cells, bacteria, and yeast.

Biotium offers a high purity grade Ethidium Homodimer I that is not available anywhere else. Ethidium Homodimer I from other suppliers often contain a high amount of inorganic salt (as much as 20%).

References

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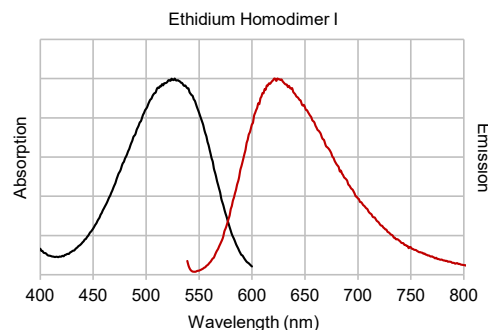


Figure 2. Normalized absorption and emission of Ethidium Homodimer I

Related Products

| Catalog number | Product |
|----------------|---|
| 90082 | DMSO, Anhydrous |
| 40050 | Ethidium Homodimer III (EthD-III), 1 mg |
| 40017 | Propidium Iodide (PI), 1 mg/mL in Water |
| 40101 | BactoView™ Live Red |
| 40102 | BactoView™ Live Green |
| 30002 | Viability/Cytotoxicity Assay Kit for Animal Live & Dead Cells |
| 30066 | Apoptotic, Necrotic & Healthy Cells Quantitation Kit Plus |
| 30027 | Viability/Cytotoxicity Assay Kit for Bacteria Live and Dead Cells |
| 32001 | Bacterial Viability and Gram Stain Kit |
| 32010 | Live-or-Dye NucFix™ Red |
| 32002-32009 | Live-or-Dye™ Fixable Viability Staining Kits |
| 40069 | PMAxx™ Dye for Viability PCR, 20 mM in Water |
| 30068 | ViaFluor® 405 SE Cell Proliferation Kit |
| 30086 | ViaFluor® 488 SE Cell Proliferation Kit |

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