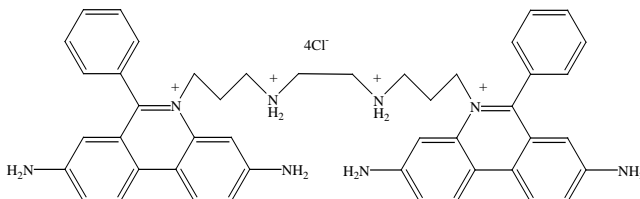


## PRODUCT AND SAFETY DATA SHEET

**PRODUCT NAME:** Ethidium Homodimer I, 2mM in DMSO solution**CATALOG #** 40014**MOLECULAR  
STRUCTURE****PROPERTIES:****Color & Form**

Red Solution

**Purity**

≥95% by TLC

**Absorption/Emission** $\lambda_{\text{ex}}/\lambda_{\text{em}}$  (with DNA) = 528/617nm $\lambda_{\text{abs}}$  (in H<sub>2</sub>O, no DNA) = 493nm**STORAGE AND  
HANDLING:**

Stored at 4 °C and protect from light

**APPLICATION:**

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 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. However, it is very useful to detect nucleic acids in solution, or detect dead cells with disintegrated cell membranes.

Ref.: 1) *Biochemistry* **17**, 5078(1978); 2) *Anal. Biochem.* **94**, 259(1979); 3) *Bioorg. Med. Chem.* **3**, 701(1995); 4) *Nucleic Acids Res.* **23**, 2413(1995).

**TOXICITY:**

Unknown

**FIRST AID:**

Potentially harmful. Avoid prolonged or repeated exposure. Avoid getting in eyes, on skin, or on clothing. Wash thoroughly after handling. If eye or skin contact occurs, wash affected areas with plenty of water for 15 minutes and seek medical advice. In case of inhaling or swallowing, move individual to fresh air and seek medical advice immediately.

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