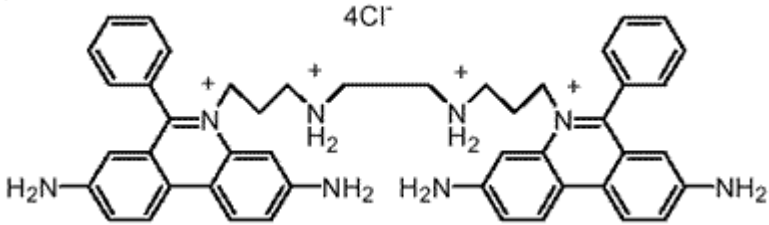


Ethidium Homodimer I

(also known as EthD-1, or EtDi)

Instruction Manual

Catalog Number	PK-CA707-40010
Description	Ethidium Homodimer 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 cells with disintegrated cell membranes. PromoKine offers a high purity grade Ethidium Homodimer. Ethidium Homodimer from other suppliers often contains a high amount (as much as 20%) of inorganic salt that lowers the weight percent purity.
Quantity	1 mg
Excitation / Emission Maxima	$\lambda_{ex}/\lambda_{em}$ (with DNA) = 528/617 nm; λ_{abs} (in water, no DNA) = 493nm; Extinction coefficient: $\geq 9,000$
Molecular Structure	
Molecular Weight / Molecular Formula	857 Da; C ₄₆ H ₅₀ Cl ₄ N ₈
Purity	98% as determined by TLC
Appearance / Formulation / Solubility	Red solid; soluble in DMSO or MeOH.
Storage & Stability	Stored desiccated at 4°C. Protect from light, especially when in solution.
Applications	Cell staining (nucleus stain)
References	1) <i>Biochemistry</i> 17 , 5078(1978) 2) <i>Anal. Biochem.</i> 94 , 259(1979) 3) <i>Bioorg. Med. Chem.</i> 3 , 701(1995) 4) <i>Nucleic Acids Res.</i> 23 , 2413(1995)
Caution	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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