

Product Information

Ethidium Homodimer-1 (EthD-1)

Catalog Number	Unit Size
C010	1 mg

Storage upon receipt:

- -20°C
- Protect from light

Ex/Em: 528/617 nm, bound to DNA

Product Description

Ethidium Homodimer-1 (EthD-1) is a high affinity fluorescent nucleic acid stain that is weakly fluorescent until bound to DNA and emits red fluorescence (excitation/emission maxima ~528/617). The EthD-1 is highly positively charged and cell-impermeant, and widely used as cell viability indicator.

Specifications

Chemical Name: ethidium homodimer-1

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Molecular

Formula: C₄₆H₅₀Cl₄N₈

Molecular Weight: 856.77

CAS Number: 61926-22-5

Application

Ethidium Homodimer-1 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 cannot 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.