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DATASHEET

Ethidium homodimer I

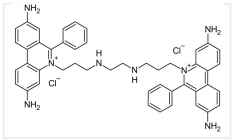
Product overview

Name	Ethidium homodimer I
Cat No	HB18482
Alternative names	Dead Cell Stain, EtDi, EthD-1
Biological description	Ethidium homodimer I (EthD-I) is a membrane-impermeable, high-affinity, nucleic acid stain. Selectively labels dead cells with compromised plasma membranes. Compatible with flow cytometry, fluorescence microscopy, and plate reader assays.
Applications	fluorescence imaging, live cell imaging
Purity	>90%
Description	Red fluorescent selective dead cell stain.

Solubility & Handling

Storage instructions	-20°
Solubility overview	DMSO
Handling	This compound is light sensitive; exposure to light may affect compound performance. We therefore recommend storing the solid material and any solutions in the dark and protecting from light.
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use

Chemical Data

Chemical name	5-[3-[2-[3-(3,8-diamino-6-phenylphenanthridin-5-ium-5-yl)propylamino]ethylamino]propyl]-6-phenylphenanthridin-5-ium-3,8-diamine;dichloride;dihydrochloride
Molecular Weight	856.8
Chemical structure	
Molecular Formula	$C_{46}H_{50}Cl_4N_8$
CAS Number	61926-22-5
PubChem identifier	12328897
SMILES	C1=CC=C(C=C1)C2=C3C=C(C=CC3=C4C=CC(=CC4=[N+]2CCCNCCNCCC[N+]5=C6C=C(C=CC6=C7C=CC(=CC7=C5C8=CC=CC=C8)N)N)N)N.Cl.Cl.[Cl-].[Cl-]
InChiKey	ZKAJUKABUUJRLB-UHFFFAOYSA-N
Appearance	Solid
Excitation	528 nm
Emission	618 nm

References

A novel method for the evaluation of proximal tubule epithelial cellular necrosis in the intact rat kidney using ethidium homodimer.

Edwards JR et al (2007) BMC physiology 7

PubMedID 17319948

A stable double-stranded DNA-ethidium homodimer complex: application to picogram fluorescence detection of DNA in agarose gels.

Glazer AN et al (1990) Proceedings of the National Academy of Sciences of the United States of America 87
PubMedID 2339125

Fluorescent labeling of DNA with ethidium homodimer without measurable decrease in DNA mobility: application to automated gel electrophoresis apparatus.

Zakharov SF et al (1995) Analytical biochemistry 224
PubMedID 7710071