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DATASHEET

JC-1

Product overview

Name	JC-1
Cat No	HB0791
Biological action	Dyes & stains
Purity	>95%
Description	Mitochondrial membrane potential indicator/dye. Widely used in apoptosis studies.

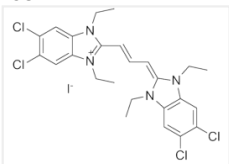
Biological Data

Biological description	<p>Mitochondrial membrane potential indicator/dye which is widely used in apoptosis studies to monitor mitochondrial health.</p> <p>It can be used as an indicator of mitochondrial membrane potential in various cell types including neurons and myocytes and also intact tissues and isolated mitochondria.</p> <p>At low concentrations (due to low mitochondrial membrane potential), JC-1 is predominantly a monomer that yields green fluorescence with emission of 530 ± 15 nm.</p> <p>At high concentrations (due to high mitochondrial membrane potential), the dye aggregates yielding a red to orange colored emission (590 ± 17.5 nm).</p> <p>Depolarization is indicated by a decrease the aggregate fluorescent count and hyperpolarization is indicated by an increase.</p> <p>Allows both qualitative visualization and quantitative detection.</p>
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Solubility & Handling

Storage instructions	-20°C
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	5,5',6,6'-Tetrachloro-1,1',3,3'-tetraethylbenzimidazolylcarbocyanine iodide
Molecular Weight	652.2
Chemical structure	
Molecular Formula	$C_{25}H_{27}Cl_4IN_4$
CAS Number	47729-63-5

References

Functional live cell imaging of the pulmonary neuroepithelial body microenvironment.

De Proost I *et al* (2008) Am J Respir Cell Mol Biol 39(2)

PubMedID [18367726](#)

Flex-Hets differentially induce apoptosis in cancer over normal cells by directly targeting mitochondria.

Liu T *et al* (2007) Mol Cancer Ther 6(6)

PubMedID [17575110](#)
