

JC-1 . iodide

Fluorescent probe to test Pgp activity

JC-1 is a very sensitive fluorescent probe to test Pgp activity. In acute myeloid leukemia (AML) samples JC-1 is capable of distinguishing between resistant, intermediate and sensitive groups, whereas rhodamine 123 only recognizes the resistant group. As in cell lines, the red emission band (597nm) of JC-1 appears to be more convenient for detection of low-level resistance in AML than other probes, such as rhodamine 123 (529nm) or calcein-AM (517nm). Green fluorescent JC-1 existing as a monomer ($\lambda_{em}=527nm$) at low concentrations or at low membrane potential. However, at higher concentrations (aqueous solutions above 0.1 μ M) or higher potentials, JC-1 forms red fluorescent 'J-aggregates', which exhibit a broad excitation spectrum and a very narrow emission spectrum ($\lambda_{em}=590nm$). JC-1 stains mitochondria in living cells in a membrane potential-dependent function. JC-1 has been used in a functional assay of multidrug resistance cells and in apoptosis related mitochondrial modifications.

Citations: 26

[View Online »](#)

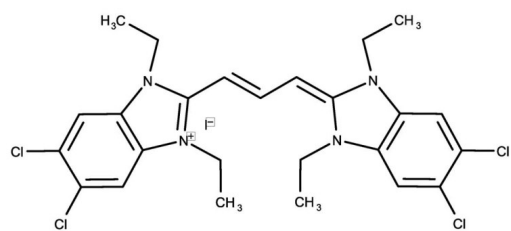
Ordering Information

[Order Online »](#)

ALX-620-053-M005	5mg
------------------	-----

Manuals, SDS & CofA

[View Online »](#)



Handling & Storage

Use/Stability	As indicated on product label or CoA when stored as recommended.
Handling	Protect from light, especially when in solution. Keep cool and dry.
Long Term Storage	+4°C
Shipping	Ambient Temperature

Regulatory Status

RUO - Research Use Only

Product Details

Alternative Name	5,5',6,6'-Tetrachloro-1,1',3,3'-tetraethylbenzimidazolylcarbocyanine iodide
Appearance	Red solid.
CAS	47729-63-5
Formula	$C_{25}H_{27}Cl_4IN_4$
MW	652.2
Purity	≥98% (HPLC)
Solubility	Soluble in DMSO or methanol.



ENZO LIFE SCIENCES,
INC.
Phone: 800.942.0430
[info-
usa@enzolifesciences.com](mailto:info-usa@enzolifesciences.com)

European Sales Office
ENZO LIFE SCIENCES
(ELS) AG
Phone: +41 61 926 8989
[info-
eu@enzolifesciences.com](mailto:info-eu@enzolifesciences.com)

Belgium, The Netherlands
& Luxembourg
Phone: +32 3 466 0420
[info-
be@enzolifesciences.com](mailto:info-be@enzolifesciences.com)

France
Phone: +33 472 440 655
[info-
fr@enzolifesciences.com](mailto:info-fr@enzolifesciences.com)

Germany
Phone: +49 7621 5500 526
[info-
de@enzolifesciences.com](mailto:info-de@enzolifesciences.com)

UK & Ireland
Phone (UK customers):
0845 601 1488
Phone: +44 1392 825900
[info-
uk@enzolifesciences.com](mailto:info-uk@enzolifesciences.com)