



CERTIFICATE OF ANALYSIS

PRODUCT: **JC-1 . iodide**
[5,5',6,6'-Tetrachloro-1,1',3,3'-
tetraethylbenzimidazolylcarbocyanine iodide]
C₂₅H₂₇Cl₄IN₄, M.W. 652.2, CAS# [47729-63-5]

PRODUCT NUMBER: J-1090

LOT NUMBER: A8052

APPEARANCE: Red solid

SOLUBILITY: Soluble in DMSO

PURITY (HPLC): 99%

ABSORPTION SPECTRUM:		<u>Specification</u>	<u>Actual</u>
	λ (MeOH)(nm)	514 \pm 3	514
	ϵ (514)	\geq 175,000	190,000

FLUORESCENCE SPECTRUM:	λ_{em} (MeOH)(nm)	529 \pm 3	529
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OTHER DATA: The green fluorescent JC-1 exists as a monomer 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. 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.



λ_{em} (monomer) = 527nm

λ_{em} ("J-aggregates") = 590nm)

STORAGE & HANDLING: Keep cool and dry at +4°C. **Protect from light, especially when in solution.**

CAUTION: For research use only. Not for human or drug use. The pharmacological and toxicological properties of this product have not been fully investigated. Use caution when handling. Do not use this compound if you are not fully trained or are unaware of the hazards involved.

Verified: