

JC-1

Catalog No: tcsc1148



Available Sizes

Size: 2mg

Size: 5mg

Size: 10mg

Size: 50mg



Specifications

CAS No:

3520-43-2

Formula:

$C_{25}H_{27}Cl_4IN_4$

Pathway:

Others

Target:

Others

Purity / Grade:

>98%

Solubility:

H₂O :

Alternative Names:

CBIC2

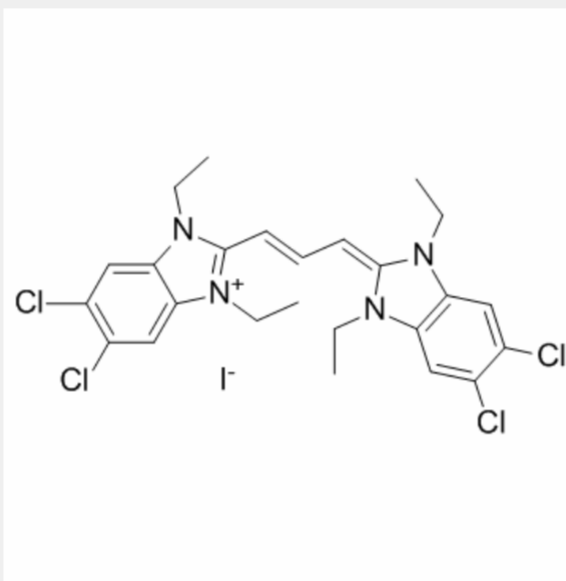
Observed Molecular Weight:

652.23

Product Description

JC-1 is a fluorescent lipophilic carbocyanine dye, which can be used to measure mitochondrial membrane potential.

In Vitro: JC-1 (2.5 μM) exposed to murine L1210 lymphoblasts, can be detected the presence of both cytoplasmic JC-1 monomer and mitochondrial J-aggregates in these cells. JC-1 fluorescence is usually excited by the 488 nm laser wavelength common in flow cytometers^[1]. Fluorescent labeling of mitochondria with either JC-1 (1 $\mu\text{g}/\text{mL}$, 15 min), reveals that are distributed irregularly, resulting in regions of high and low mitochondrial content within astrocytes^[2]. JC-1 has been shown to interact with α -synuclein at the acidic C-terminal region with a K_d of 2.6 μM . JC-1 itself does not accelerate the protein aggregation of α -synuclein in the absence of iron, instead, it decelerates the aggregation process by extending the lag phase approx^[3]. JC-1 is avidly accumulated in sensitive K562 cells where it displays both a green cytoplasmic and red mitochondrial fluorescence. JC-1 is poorly accumulated in resistant K562 cells, which displays only a slight green fluorescence^[4].



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