

# 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

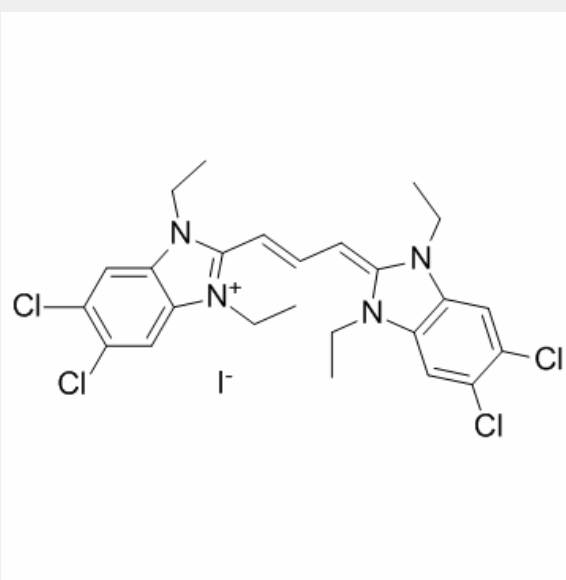
**Observed Molecular Weight:**

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  $\mu\text{M}$ ) 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<sup>[1]</sup>. Fluorescent labeling of mitochondria with either JC-1 (1  $\mu\text{g/mL}$ , 15 min), reveals that are distributed irregularly, resulting in regions of high and low mitochondrial content within astrocytes<sup>[2]</sup>. JC-1 has been shown to interact with  $\alpha$ -synuclein at the acidic C-terminal region with a  $K_d$  of 2.6  $\mu\text{M}$ . JC-1 itself does not accelerate the protein aggregation of  $\alpha$ -synuclein in the absence of iron, insted, it decelerates the aggregation process by extending the lag phase approx<sup>[3]</sup>. 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<sup>[4]</sup>.



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!