

JC-1 Mitochondrial Membrane Potential probe

JC-1 is an ideal fluorescent probe widely used to detect mitochondrial membrane potential. It can detect cell, tissue or purified mitochondrial membrane potential. When the mitochondrial membrane potential is high, JC-1 aggregates in the matrix of the mitochondria to form a polymer, which can produce red fluorescence; when the mitochondrial membrane potential is low, JC-1 cannot accumulate in the matrix of the mitochondria. At this time, JC-1 is a monomer, which can produce green fluorescence. In this way, it is very convenient to detect the change of mitochondrial membrane potential through the change of fluorescence color. The relative ratio of red and green fluorescence is commonly used to measure the ratio of mitochondrial depolarization.

The maximum excitation wavelength of JC-1 monomer is 514nm and the maximum emission wavelength is 529nm; the maximum excitation wavelength of JC-1 polymer is 585nm and the maximum emission wavelength is 590nm. For actual observation, use the conventional settings for observing red fluorescence and green fluorescence.

The commonly used concentration range of JC-1 for detecting the mitochondrial membrane potential of cells is 1-20ug/mL, and the suitable concentration of JC-1 for many cells is 10ug/mL.

CAS: 3520-43-2

Mol. Formula: C₂₅H₂₇Cl₄N₄

Mol. Weight: 652.23

Purity: >95% (HPLC)

Catalog No.	520014
Size	1mg
Product Category	Cell Detection
Storage/Stability	-20°C/1 year
Shipping	Gel Packs

