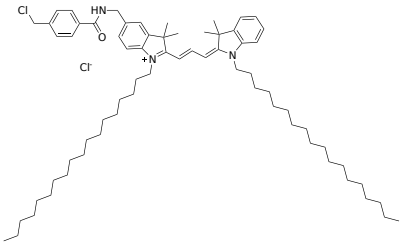
CytoTrace™ CM-DiI

Catalog Number: 22057, 22058
Unit Size: 10x50 ug, 1 mg

Product Details

Storage Conditions	Freeze (< -15 °C), Minimize light exposure
Expiration Date	12 months upon receiving

Chemical Properties

Appearance	Solid dark red
Molecular Weight	1051.51
Soluble In	DMSO
Chemical Structure	

Spectral Properties

Excitation Wavelength	548 nm
Emission Wavelength	563 nm

Applications

1,1'-Dioctadecyl-3,3,3',3'-tetramethylindocarbocyanine iodide (CM-DiI) is a lipophilic carbocyanine dye that is commonly used for labeling cell membranes in various biological and neuroscientific research applications. It is a fluorescent dye that exhibits strong fluorescence properties when incorporated into cell membranes or lipid-containing structures. CM-DiI is widely used to label and trace cell membranes to study cell migration, cell tracking, and axonal projections in live and fixed tissues. Once incorporated into the cell membrane, CM-DiI tends to stay in place and does not rapidly diffuse within the membrane. This characteristic enables long-term imaging and tracing studies. In neuroscience, CM-DiI is particularly valuable for studying neural connections and pathways. Researchers can apply CM-DiI to specific regions of the brain or spinal cord and observe the labeled axons projecting to other regions. CM-DiI emits strong red fluorescence, making it easily detectable and suitable for fluorescence microscopy. CM-DiI is relatively stable, and its fluorescence is resistant to photobleaching, allowing for extended imaging sessions without significant loss of signal. It allows researchers to visualize and analyze labeled structures with high specificity. CM-DiI can be used in both cell cultures and living organisms, allowing researchers to study biological processes at various levels of complexity.