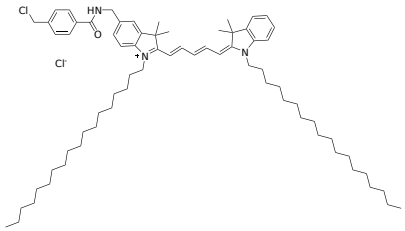
CytoTrace™ CM-DiD

Catalog Number: 22059, 22060
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 blue
Molecular Weight	1077.55
Soluble In	DMSO
Chemical Structure	

Spectral Properties

Excitation Wavelength	643 nm
Emission Wavelength	663 nm

Applications

CM-DiD is the longer wavelength analog of 1,1'-Dioctadecyl-3,3,3',3'-tetramethylindocarbocyanine iodide (CM-DiI). It is a lipophilic carbocyanine dye that can be used for labeling cell membranes in various biological and neuroscientific research applications. Compared to the well-known CM-DiI, CM-DiD has much longer excitation and emission wavelengths. CM-DiD is compatible with the Cy5 filter set. It is well excited with the red laser at 647 nm or He-Ne laser at 633 nm. It is a fluorescent dye that exhibits strong fluorescence properties when incorporated into cell membranes or lipid-containing structures. CM-DiI can be 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-DiD 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-DiD might be particularly valuable for studying neural connections and pathways. CM-DiD 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-DiD can be used in both cell cultures and living organisms, allowing researchers to study biological processes at various levels of complexity.