

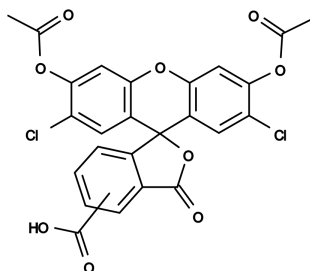
CDCFDA
[5-(and-6)-Carboxy-2',7'-dichlorofluorescein
diacetate] *Mixed isomers*Catalog number: 22025
Unit size: 100 mg**Product Details**

Storage Conditions	Freeze (<math>< -15\text{ }^\circ\text{C}</math>), Minimize light exposure
Expiration Date	12 months upon receiving

Chemical Properties

Appearance	Off-white solid
Molecular Weight	529.28
Soluble In	DMSO

Chemical Structure

**Spectral Properties**

Excitation Wavelength	505 nm
Emission Wavelength	526 nm

Applications

It is widely recognized that fluorescent labeling of cells is an effective means to determine total cell numbers or how many viable cells exist in a sample. Flow cytometry combined with fluorescent staining is a powerful tool to analyze heterogeneous cell populations. Fluorescein diacetate (FDA) and its derivatives are non-fluorescent molecules that diffuse into cells and are hydrolyzed by intracellular non-specific esterases to give fluorescent products. The fluorescent products can be accumulated only in those cells that have intact cell membranes; therefore, dead cells with leaky membranes are not stained. The precise kinetics of membrane transport and intracellular hydrolysis of FDA and its analogs (such as CDCFDA) are related to cellular functions, thus FDA labeling can be used for monitoring cells by flow cytometry or fluorescence microscopy. The fluorescence intensity of labeled cells by FDA dyes varies considerably among cell lines and strains, probably because of differences in intracellular esterase activity.