

6-Carboxy-H₂DCFDA (6-carboxy-2',7'-dichlorodihydrofluorescein)

<http://hk.lumiprobe.com/p/6-carboxy-h2dcfda>

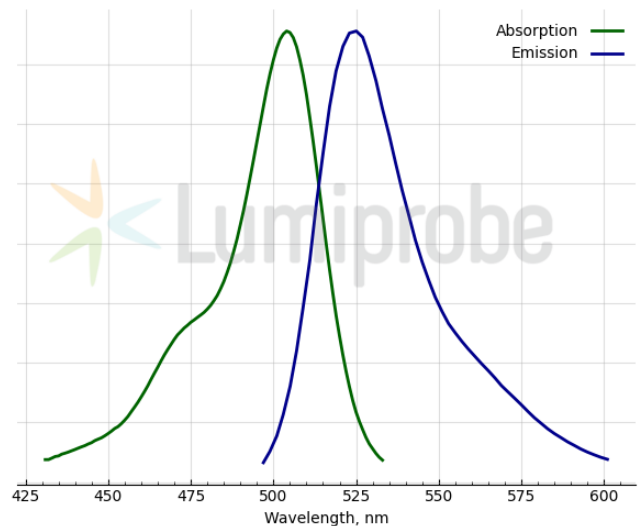
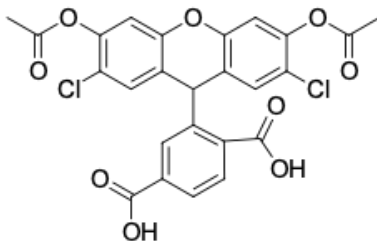
6-Carboxy-H₂DCFDA is a chemically reduced, acetylated form of fluorescein used as an indicator for reactive oxygen species (ROS) in living cells. This reagent is not suitable for working with fixed samples.

6-Carboxy-H₂DCFDA is a non-fluorescent compound that begins to fluoresce after the cleavage of acetyl groups by cellular esterases and its oxidation by reactive oxygen species inside the cell. The resulting 6-carboxy-2',7'-dichlorofluorescein has a bright fluorescence in the green channel (absorption maximum at 504 nm, emission maximum at 525 nm), that can be detected using various methods, such as flow cytometry, plate reading, or fluorescent microscopy.

Acetyl groups in 6-carboxy-H₂DCFDA increase its lipophilicity and improve the permeability of the indicator through the cell membrane. After deacetylation by cellular esterases, the compound acquires a charge that allows it to be retained inside the cell. This carboxylated H₂DCFDA analog has two additional negative charges that impede its leakage out of the cell.

Recommendations for using the reagent:

- Use a freshly prepared reagent solution (the working solution is not intended for long-term storage because of gradual reagent oxidation).
- Select an optimal working concentration of the reagent and incubation time required for reagent deacetylation and oxidation for the specific cell line and assay conditions.
If no protocols are recommended for the specific cell line, start with a concentration from 1 to 10 μM and incubation for 30 min.
- Do not incubate the dye with the cells in the presence of serum because it contains enzymes that cleave H₂DCFDA.



外观:

分子量: 531.30

CAS 编号: 247044-02-6

分子式: C₂₅H₁₆Cl₂O₉

溶解度:

质量控制:

储存条件:

法律声明:

本產品僅供研究目的提供和銷售。本產品並未經過食品、藥品、醫療器械、化妝品等領域的安全性和效力測試，且未經明示或暗示授權用於其他任何用途，包括但不限於體外診斷、人類或動物用途，以及商業用途。

激发/吸收极大值，纳米: 504

ϵ , 摩尔吸光系数, cm^{-1} : 83500

发射极大值，纳米: 525

荧光量子产率: 0.79

CF_{260} : 0.23

CF_{280} : 0.16