

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

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

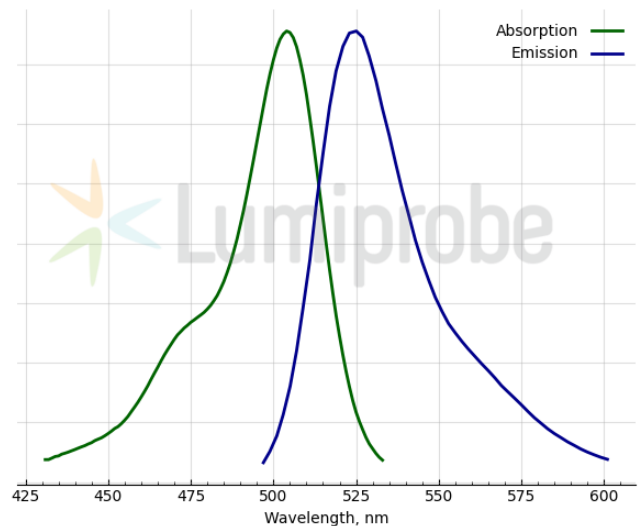
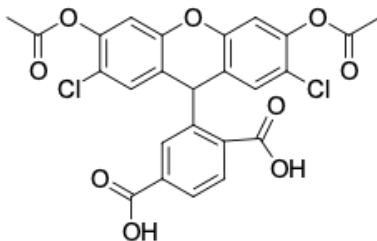
6-Carboxy-H₂DCFDA is a chemically reduced, acetylated form of fluorescein used as an indicator for reactive oxygen species (ROS) in living cells. This reagent is not suitable for working with fixed samples.

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 531.30

量:

CAS 247044-02-6

编号:

分子 C₂₅H₁₆Cl₂O₉

式:

溶解

度:

质量

控制:

储存

条件:

法律声明: 本产品仅供研究目的提供和销售。本产品并未经过食品、药品、医疗器械、化妆品等领域的安全性和效力测试, 且未经明示或暗示授权用于其他任何用途, 包括但不限于体外诊断、人类或动物用途, 以及商业用途。

激发/ 504

吸收
极大
值,
纳米:

ϵ , 摩 83500

尔吸
光系
数 m^2

发射 525

极大
值,
纳米:

荧光 0.79

量子
产率:

CF_{260} : 0.23

CF_{280} : 0.16