

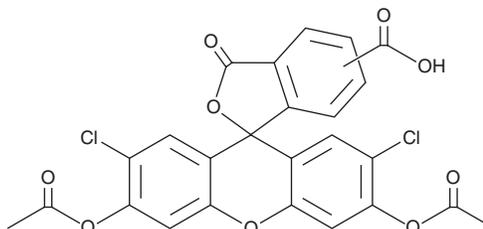
# PRODUCT INFORMATION



## 5(6)-Carboxy-2',7'-dichlorofluorescein diacetate

Item No. 34692

**CAS Registry No.:** 127770-45-0  
**Formal Name:** 3',6'-bis(acetyloxy)-2',7'-dichloro-3-oxo-spiro[isobenzofuran-1(3H),9'-[9H]xanthene]-ar-carboxylic acid  
**Synonym:** CDFDA  
**MF:** C<sub>25</sub>H<sub>14</sub>Cl<sub>2</sub>O<sub>9</sub>  
**FW:** 529.3  
**Purity:** ≥85% (mixture of isomers)  
**Ex./Em. Max:** 504/530 nm  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

5(6)-Carboxy-2',7'-dichlorofluorescein diacetate (CDFDA) is supplied as a solid. A stock solution may be made by dissolving the CDFDA in the solvent of choice, which should be purged with an inert gas. CDFDA is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of CDFDA in these solvents is approximately 30 mg/ml.

### Description

CDFDA is an oxidant-sensitive and cell-permeable fluorescent probe.<sup>1</sup> Base hydrolysis of the ester bonds by intracellular esterases releases the acetate groups and the resulting compound, 5(6)-carboxy-2',7'-dichlorofluorescein, is oxidized by reactive oxygen species (ROS) and nitric oxide (NO) and displays excitation/emission maxima of 504 and 530 nm, respectively, which can be quantified as a measure of oxidant production.

### Reference

1. Hempel, S.L., Buettner, G.R., O'Malley, Y.Q., *et al.* Dihydrofluorescein diacetate is superior for detecting intracellular oxidants: Comparison with 2',7'-dichlorodihydrofluorescein diacetate, 5(and 6)-carboxy-2',7'-dichlorodihydrofluorescein diacetate, and dihydrorhodamine 123. *Free Radic. Biol. Med.* **27(1-2)**, 146-159 (1999).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 05/03/2023

#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897  
[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM