

Certificate of Analysis

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Product Name: H2DCFDA

Catalog No.: 5935

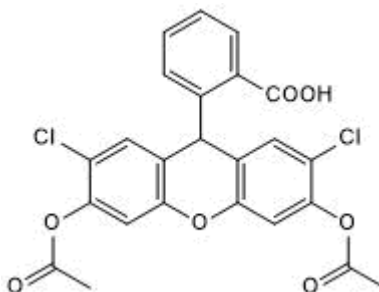
Batch No.: 1

CAS Number: 4091-99-0

IUPAC Name: 2-[3,6-Bis(acetyloxy)-2,7-dichloro-9*H*-xanthen-9-yl]benzoic acid

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₄H₁₆Cl₂O₇
Batch Molecular Weight: 487.29
Physical Appearance: White solid
Solubility: DMSO to 100 mM
 ethanol to 10 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 97.9% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen	Chlorine
Theoretical	59.16	3.31		14.55
Found	59.06	3.55	0.1	14.32

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Fluorescent ROS indicator; becomes fluorescent when oxidized. Excitation wavelength ~490 nm, emission ~520 nm. Cell permeable.

Physical and Chemical Properties:

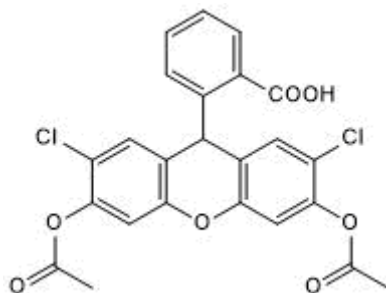
Batch Molecular Formula: C₂₄H₁₆Cl₂O₇

Batch Molecular Weight: 487.29

Physical Appearance: White solid

Minimum Purity: >97%

Batch Molecular Structure:



Storage: Store at -20°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

DMSO to 100 mM

ethanol to 10 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Santabárbara-Ruiz et al (2015) ROS-induced JNK and p38 signaling is required for unpaired cytokine activation during drosophila regeneration. *PLoS Genet.* **11** e1005595. PMID: 26496642.

Nicholson et al (2013) Sigma-2 receptors play a role in cellular metabolism: stimulation of glycolytic hallmarks by CM764 in human SK-N-SH neuroblastoma. *J.Pharmacol.Exp.Ther.* **356** 232. PMID: 26574517.

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