

Product Name: Calcein AM

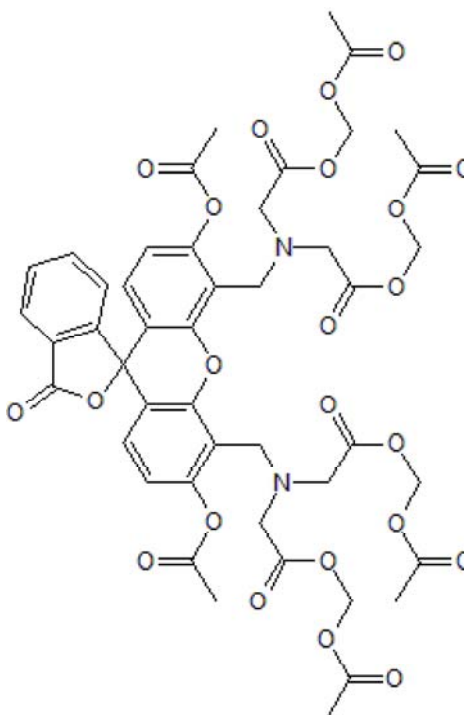
Catalog No.: 5119

Batch No.: 1

IUPAC Name: *N,N'*-[[[3',6'-Bis(acetyloxy)-oxospiro[isobenzofuran-1-(3*H*),9'-(9*H*)xanthene]-4',5'-diyl]bis(methylene)]bis [*N*-[2-(acetyloxy)methoxy]-2-oxoethyl]glycine 1,1'-bis[(acetyloxy)methyl] ester

1. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|-----------------------------------|--|
| Batch Molecular Formula: | C ₄₆ H ₄₆ N ₂ O ₂₃ |
| Batch Molecular Weight: | 994.86 |
| Physical Appearance: | White solid |
| Solubility: | DMSO to 100 mM |
| Storage: | Store at -20°C |
| Batch Molecular Structure: | |



2. ANALYTICAL DATA

| | |
|---------------------------|---------------------------|
| HPLC: | Shows 95.9% purity |
| ¹H NMR: | Consistent with structure |
| Absorption: | λ max = 284nm (Methanol) |

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

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Description:

Cell permeable, non-fluorescent compound for monitoring cell viability, chemotaxis, cell adhesion and multidrug resistance; hydrolyzed by intracellular esterases to become fluorescent calcein in living cells. .

Physical and Chemical Properties:

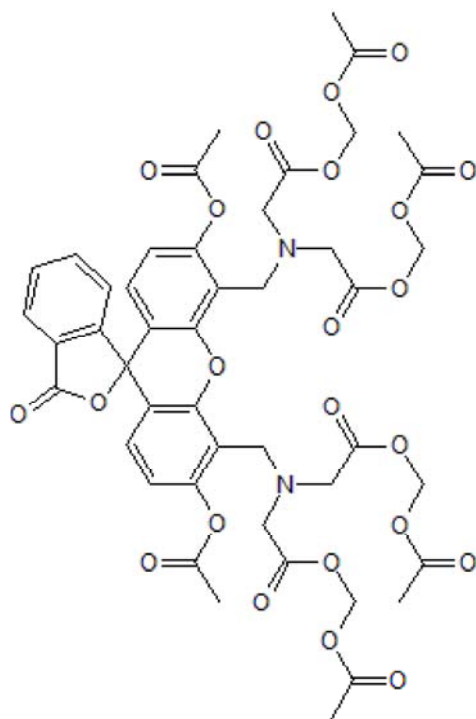
Batch Molecular Formula: C₄₆H₄₆N₂O₂₃

Batch Molecular Weight: 994.86

Physical Appearance: White solid

Minimum Purity: >95%

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

This product is supplied as a lyophilized solid and may be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

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:

Kuehn *et al* (2011) Prostaglandin E2 activates and utilizes mTORC2 as a central signaling locus for the regulation of mast cell chemotaxis and mediator release. *J.Biol.Chem.* **286** 391. PMID: 20980255.

Lazarowski *et al* (1997) Direct demonstration of mechanically induced release of cellular UTP and its implication for uridine nucleotide receptor activation. *J.Biol.Chem.* **272** 24328. PMID: 9305892.

Bakos *et al* (1996) Membrane topology and glycosylation of the human multidrug resistance-associated protein. *J.Biol.Chem.* **271** 12322. PMID: 8647833.

De Gendt *et al* (1996) The use of calcein acetomethylester (AM)-labelled polymorphonuclear cells in a polycarbonate filter chemotaxis assay. *Clin.Chim.Acta.* **249-189**. PMID: 8737602

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