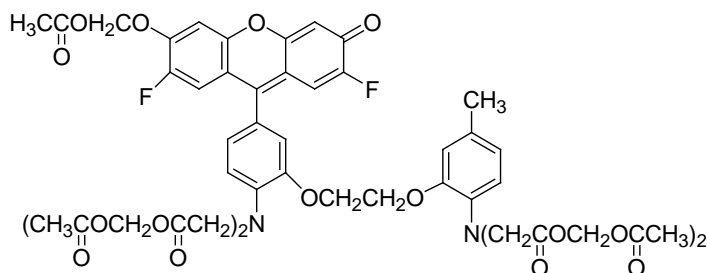


PRODUCT AND SAFETY DATA SHEET

PRODUCT NAME: FLUO-4, AM Ester**CATALOG #:** 50018**MOLECULAR INFORMATION:** C₅₁H₅₀F₂N₂O₂₃
MWt: 1096.95
[273221-67-3]**PROPERTIES:**

Color & Form Orange red solid
Purity ≥ 95% by HPLC
Solubility Soluble in DMSO
Absorption/Emission 494 nm/506nm (with [Ca²⁺])

STORAGE AND HANDLING:

Fluo-4 AM ester should be stored desiccated at -20 °C upon receipt. We recommend DMSO as the solvent for making stock solution. To dissolve the material, both DMSO and fluo-4 AM should be warmed to room temperature before mixing. Allow sufficient time for the AM ester to dissolve since the dissolution can be kinetically slow. For long-term storage, anhydrous DMSO should be used and the DMSO stock solution should be tightly sealed and frozen at -20 °C. Also, the stock solution should be warmed to room temperature each time before opening to avoid moisture condensation, which may hydrolyze the AM ester during long term storage.

APPLICATION

Membrane-permeant AM ester form of Fluo-4 that can be loaded into cells via incubation. Fluo-4 AM ester itself does not bind Ca²⁺, but it is readily hydrolyzed to fluo-4 by endogenous esterases once the dye is inside the cells. Fluo-4 is an analog of fluo-3 with the two chlorine substituents replaced by fluorines, which results in increased fluorescence excitation at 488 nm that gives higher fluorescence signal. An important application of Fluo-4 AM ester is its use in high throughput drug screening.

Ref: 1) *Cell Calcium* 27 (2), 97-106 (2000)

TOXICITY: Unknown

FIRST AID: Potentially harmful. Avoid prolonged or repeated exposure. Avoid getting in eyes, on skin, or on clothing. Wash thoroughly after handling. If eye or skin contact occurs, wash affected areas with plenty of water for 15 minutes and seek medical advice. In case of inhaling or swallowing, move individual to fresh air and seek medical advice immediately.

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