Print Date: May 9th 2023

Certificate of Analysis

Product Name: **FURA-2AM** **Catalog No.: 2220** **Batch No.: 8**

CAS Number: 108964-32-5

IUPAC Name: 2-[6-[*bis*[2-[(Acetyloxy)methoxy]-2-oxoethyl]amino]-5-[2-[2-[*bis*[2-[(acetyloxy)methoxy]-2-oxoethyl]amino]-5-methylphenoxy]ethoxy]-2-benzofuranyl]-5-oxazolecarboxylic acid (acetyloxy)methyl ester

1. PHYSICAL AND CHEMICAL PROPERTIES

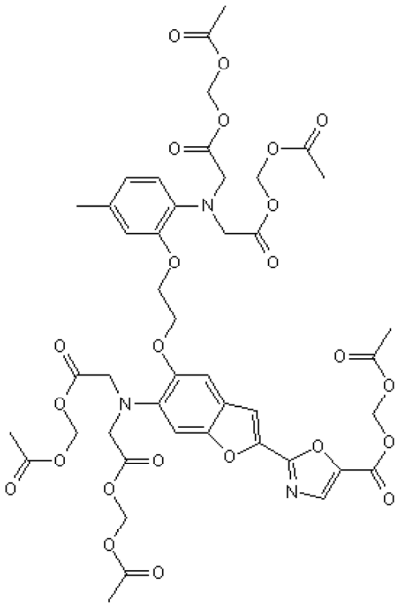
Batch Molecular Formula: $C_{44}H_{47}N_3O_{24}$

Batch Molecular Weight: 1001.85

Physical Appearance: Yellow solid

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99% purity

λ_{max}: 371 nm (Ethyl acetate)

λ_{ex}: 371 nm (Ethyl acetate)

λ_{em}: 474 nm (Ethyl acetate)

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Description:

FURA-2AM is a fluorescent ratiometric Ca^{2+} indicator. FURA-2AM is selective for Ca^{2+} over other divalent cations Mg^{2+}, Zn^{2+}, Fe^{2+} and Mn^{2+}. FURA-2AM binds to free intracellular calcium and is used to determine $[Ca^{2+}]_i$ concentration. This product is typically prepared in DMSO. F 127 (Cat. No. 6253) for the solubilization of FURA-2AM is also available.

Physical and Chemical Properties:

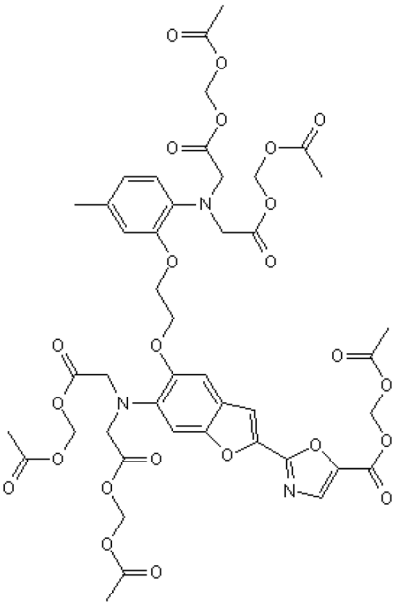
Batch Molecular Formula: $C_{44}H_{47}N_3O_{24}$

Batch Molecular Weight: 1001.85

Physical Appearance: Yellow 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:

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:

Wang *et al* (2008) Sildenafil inhibits human pulmonary artery smooth muscle cell proliferation by decreasing capacitative Ca^{2+} entry. J.Pharmacol.Sci. ***108*** 71. PMID: 18818482.

Grynkiewicz *et al* (1985) A new generation of Ca^{2+} indicators with greatly improved fluorescence properties. J.Biol.Chem. ***260*** 3440. PMID: 3838314.

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