Certificate of Analysis

Product Name: **Indo 1AM** **Catalog No.: 6704** **Batch No.: 1**

CAS Number: 112926-02-0

IUPAC Name: 2-[4-[Bis[2-[(acetoxy)methoxy]-2-oxoethyl]amino]-3-[2-[2-[bis[2-[(acetyloxy)methoxy]-2-oxoethyl]amino]-5-methylphenoxy]ethoxy]phenyl]-1*H*-indole-6-carboxylic acid (acetoxy)methyl ester

1. PHYSICAL AND CHEMICAL PROPERTIES

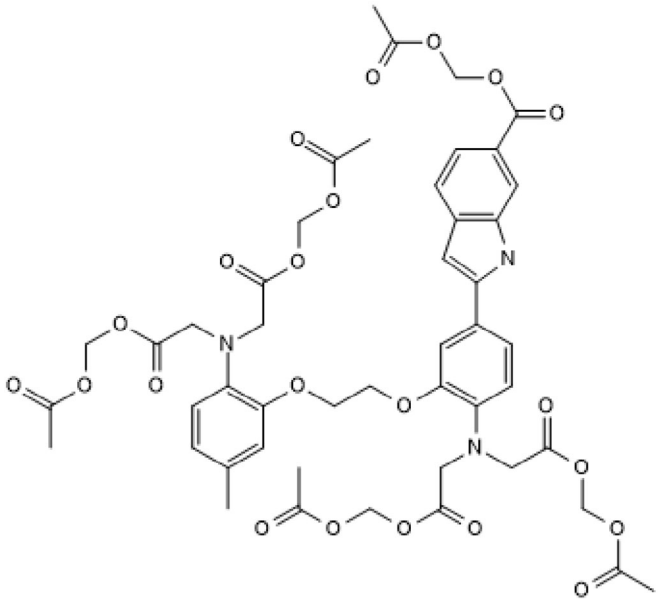
Batch Molecular Formula: $C_{47}H_{51}N_3O_{22}$

Batch Molecular Weight: 1009.91

Physical Appearance: Off-white solid

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 96.0% purity

Mass Spectrum: Consistent with structure

λ_{max}: 356 nm (Methanol)

λ_{em}: 474 nm (Methanol)

bio-techne.com
info@bio-techne.com
techsupport@bio-techne.com

North America
Tel: (800) 343 7475

China
info.cn@bio-techne.com
Tel: +86 (21) 52380373

Europe Middle East Africa
Tel: +44 (0)1235 529449

Rest of World
www.tocris.com/distributors
Tel:+1 612 379 2956

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Description:

Indo 1AM is a fluorescent Ca^{2+} indicator (K_d for Ca^{2+} = 250 nM). Cell-permeable. Displays ratiometric emission wavelength change upon Ca^{2+} binding. Excitation/emission λ are 355/475 nm for no Ca2+ and 355/401 nm for high Ca^{2+}. Absorption maxima are 349 and 331 nm for free anion and Ca complex, respectively. Respective emission maxima are 485 and 410 nm. Quantum yield ~0.5. Ideal for flow cytometry. . This product is typically prepared in DMSO.

Physical and Chemical Properties:

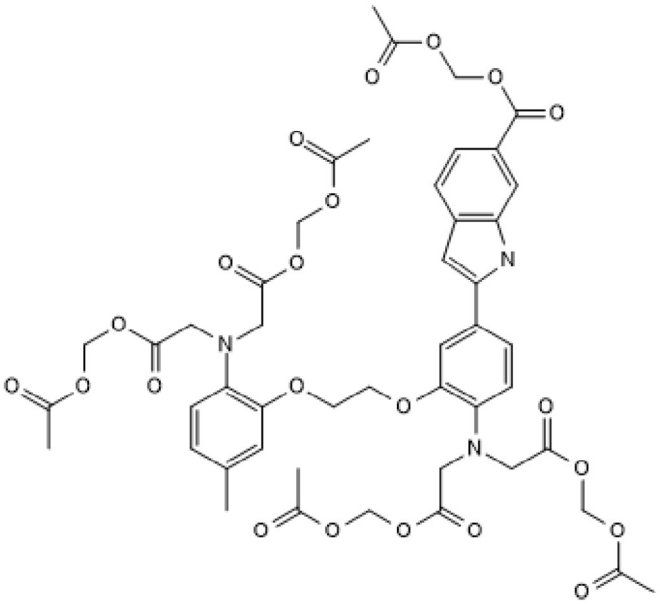
Batch Molecular Formula: $C_{47}H_{51}N_3O_{22}$

Batch Molecular Weight: 1009.91

Physical Appearance: Off-white solid

Minimum Purity: ≥90%

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 in lyophilized form. It may appear as a solid, gel or film and 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. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

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:

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