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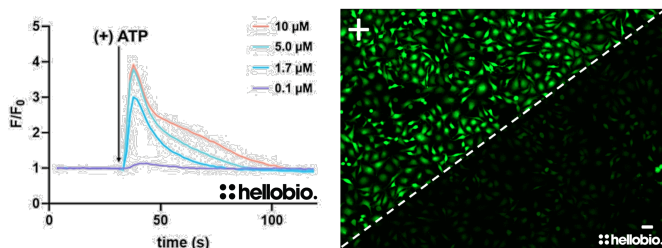
DATASHEET

Fluo-4 AM Ultrapure (>98%)

Product overview

Name	Fluo-4 AM Ultrapure (>98%)
Cat No	HB14861
Alternative names	Fluo-4 Acetoxymethyl ester
Biological description	Frequently used single-wavelength Ca^{2+} indicator ($\text{Ca}^{2+} K_d = 0.35\mu\text{M}$). Membrane permeable. Compatible with flow cytometry, plate reader, and fluorescence microscopy assays. Ultrapure.
Biological action	Dyes & stains
Applications	FACS and flow cytometry, fluorescence imaging, live cell imaging
Purity	>98%
Description	Green fluorescent membrane permeable calcium indicator

Images



Biological Data

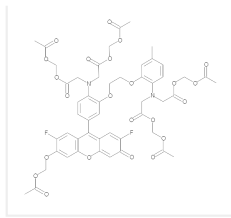
Application notes Please follow our [Fluo-4 AM Protocol](#)

Solubility & Handling

Storage instructions	-20°
Solubility overview	Soluble in DMSO (5mM)
Handling	This compound is light sensitive; exposure to light may affect compound performance. We therefore recommend storing the solid material and any solutions in the dark and protecting from light.
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use

Chemical Data

Chemical name	N-[4-[6-[(acetyloxy)methoxy]-2,7-difluoro-3-oxo-3H-xanthen-9-yl]-2-[2-[2-bis[2-[(acetyloxy)methoxy]-2-oxoethyl]amino]-5-methylphenoxy]ethoxy]phenyl]-N-[2-[(acetyloxy)methoxy]-2-oxoethyl]-glycine (acetyloxy)methyl ester
Molecular Weight	1096.9
Chemical structure	



Molecular Formula	C ₅₁ H ₅₀ F ₂ N ₂ O ₂₃
CAS Number	273221-67-3
PubChem identifier	4060965
SMILES	FC1=C(OCOC(C)=O)C=C(O2)C(C(C3=CC(OCCOC4=C(N(CC(OCOC(C)=O)=O)CC(OCOC(C)=O)=O)C=CC(C)=C4)=C(C=C3)N(CC(OCOC(C)=O)=O)CC(OCOC(C)=O)=O)=C(C2=CC5=O)C=C5F)=C1
Source	Synthetic
InChiKey	QOMNQGZXFYNBNG-UHFFFAOYSA-N
Appearance	Solid

References

[Piezo1 channel activation stimulates ATP production through enhancing mitochondrial respiration and glycolysis in vascular endothelial cells.](#)

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PubMedID [36740831](#)

[Monitoring intracellular calcium ion dynamics in hair cell populations with Fluo-4 AM.](#)

Spinelli KJ et al (2012) PloS one 7

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[Reliable measurement of free Ca\(2+\) concentrations in the ER lumen using Mag-Fluo-4.](#)

Rossi AM et al (2020) Cell calcium 87

PubMedID [32179239](#)

[Fast Neuronal Calcium Signals in Brain Slices Loaded With Fluo-4 AM Ester.](#)

İpek ÖY et al (2025) The European journal of neuroscience 61

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