

Fluo-8 AM, green fluorescent calcium binding dye ab142773

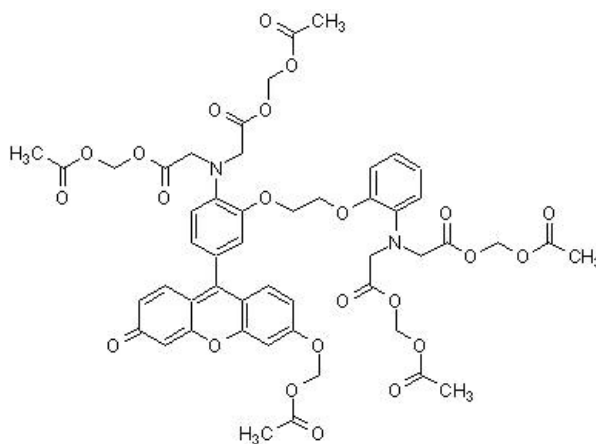
★★★★★ [1 Abreviews](#) [49 References](#) [画像数 4](#)

製品の概要

製品名	Fluo-8 AM, green fluorescent calcium binding dye
製品の詳細	Medium affinity green fluorescent calcium binding dye. Cell-permeable.
特記事項	Fluo-8® AM Working Solution: On the day of the experiment, either dissolve Fluo-8® AM in DMSO or thaw an aliquot of the indicator stock solution to room temperature. Prepare a dye working solution of 2 to 20 μ M in a buffer of your choice (e.g., Hanks and Hepes buffer) with 0.04% Pluronic® F-127. For most cell lines, Fluo-8® AM at a final concentration of 4-5 μ M is recommended. The exact concentration of indicators required for cell loading must be determined empirically.

CAS 番号 1345980-40-6

構造式

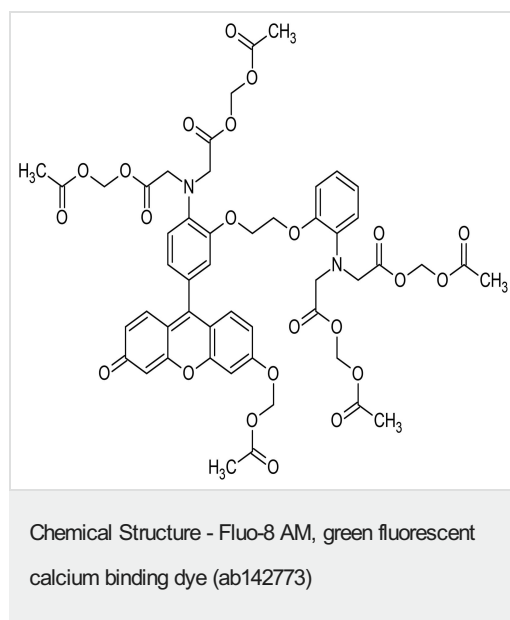


製品の特性

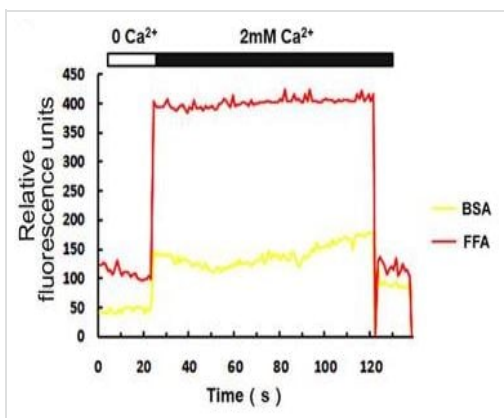
励起波長	490nm
蛍光波長	520nm
体系名	Bis(acetoxymethyl) 2,2'-((4-(6-(acetoxymethoxy)-3-oxo-3H-xanthen-9-yl)-2-(2-(bis(2-acetoxymethoxy)-2-oxoethyl)amino)phenoxy)ethoxy)phenyl)azanediyl)diacetate
分子量	1046.94
分子式	C ₅₀ H ₅₀ N ₂ O ₂₃
保存方法	Store at -20°C. Store under desiccating conditions. The product can be stored for up to 12 months.

溶解性	Soluble in DMSO
使用に関する注意	<p>Wherever possible, you should prepare and use solutions on the same day. However, if you need to make up stock solutions in advance, we recommend that you store the solution as aliquots in tightly sealed vials at -20°C. Generally, these will be useable for up to one month. Before use, and prior to opening the vial we recommend that you allow your product to equilibrate to room temperature for at least 1 hour.</p> <p>Refer to SDS for further information.</p> <p>For more information on AM esters please visit our AM esters FAQ page.</p> <p>Need more advice on solubility, usage and handling? Please visit our frequently asked questions (FAQ) page for more details.</p>
SMILES 線形表記	<chem>CC(=O)OCOC(=O)CN(CC(=O)OCOC(C)=O)c5ccccc5OCCOc1cc(ccc1N(CC(=O)OCOC(C)=O)CC(=O)OCOC(C)=O)C=2c4ccc(cc4OC3=CC(=O)C=CC=23)OCOC(C)=O</chem>
由来	Synthetic

画像



2D chemical structure image of ab142773, Fluo-8 AM, green fluorescent calcium binding dye



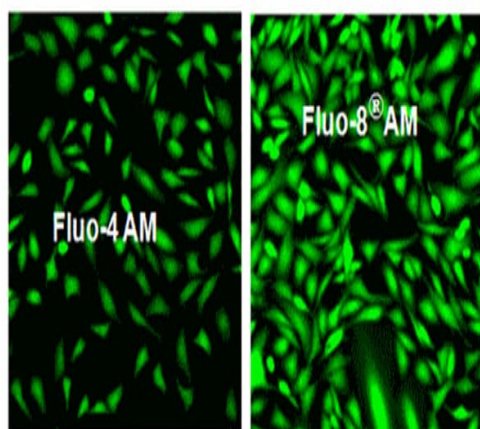
Functional Studies - Fluo-8 AM, green fluorescent calcium binding dye (ab142773)

Cui et al PLoS One. 2013;8(3):e59921. doi: 10.1371/journal.pone.0059921. Epub 2013 Mar 20. Reproduced under the Creative Commons license <http://creativecommons.org/licenses/by/4.0/>

FFA treatments increase Ca^{2+} influx to induce ERS in β -TC3 cells.

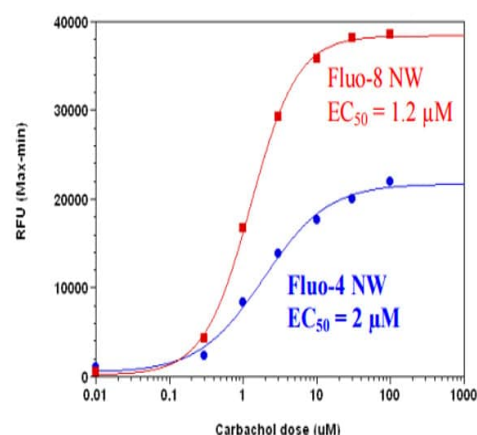
β -TC3 cells were incubated with FFA or BSA for 16 h, and then stimulated with $4 \mu\text{M}$ thapsigargin for 20 min to activate store-operated Ca^{2+} entry. Fluorescence densities of Ca^{2+} change were monitored in Fluo-8/AM-loaded β -TC3 cells after FFA or BSA treatments.

(From Figure 2B of Cui et al)



Fluorescent Cell Imaging - Fluo-8 AM, green fluorescent calcium binding dye (ab142773)

U2OS cells were seeded overnight at 40,000 cells per 100 μL per well in a 96-well black wall/clear bottom costar plate. The growth medium was removed, and the cells were incubated with 100 μL of 4 μM Fluo-4 AM or Fluo-8[®] AM in HHBS at 37°C , 5% CO_2 incubator for 1 hour. The cells were washed twice with 200 μL HHBS, then imaged with a fluorescence microscope using FITC channel.



Functional Studies - Fluo-8 AM, green fluorescent calcium binding dye (ab142773)

Fluo-8 vs Fluo-4 sensitivity to calcium release in HEK-293 cells induced by Carbachol.

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