

### Fluo-8 AM, green fluorescent calcium binding dye ab142773

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#### 概述

##### 产品名称

Fluo-8 AM, green fluorescent calcium binding dye

##### 描述

Medium affinity green fluorescent calcium binding dye. Cell-permeable.

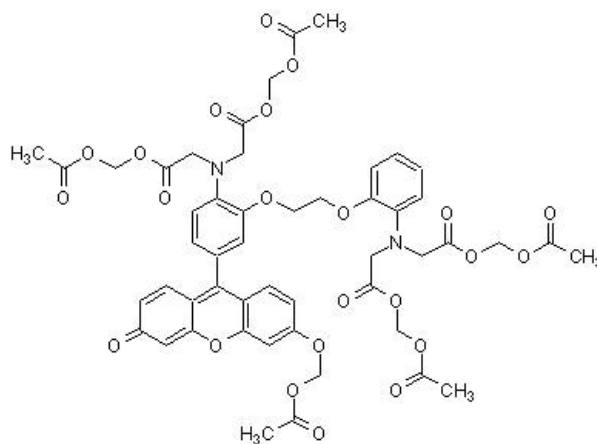
##### 常规说明

**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  $\mu\text{M}$  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  $\mu\text{M}$  is recommended. The exact concentration of indicators required for cell loading must be determined empirically.

##### CAS编号

1345980-40-6

##### 化学结构



#### 性能

##### 激发

490nm

##### 发射

520nm

##### 化学名称

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

$\text{C}_{50}\text{H}_{50}\text{N}_2\text{O}_{23}$

##### 存放说明

Store at  $-20^{\circ}\text{C}$ . Store under desiccating conditions. The product can be stored for up to 12 months.

## 溶解度概述

Soluble in DMSO

## 处理

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.

Refer to SDS for further information.

For more information on AM esters please visit our [AM esters FAQ page](#).

Need more advice on solubility, usage and handling? Please visit our [frequently asked questions \(FAQ\) page](#) for more details.

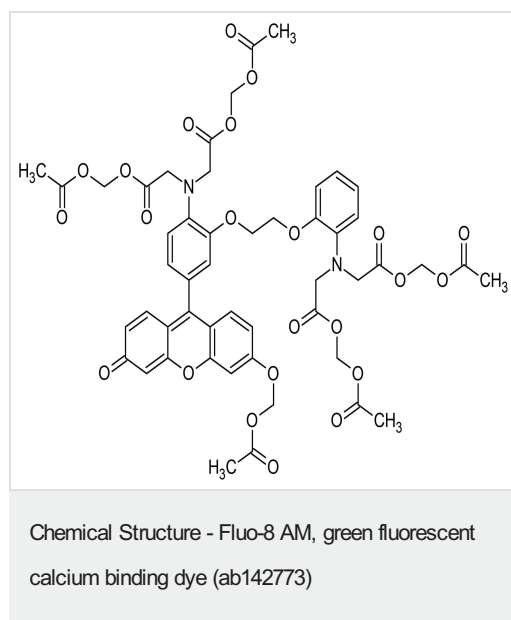
## SMILES

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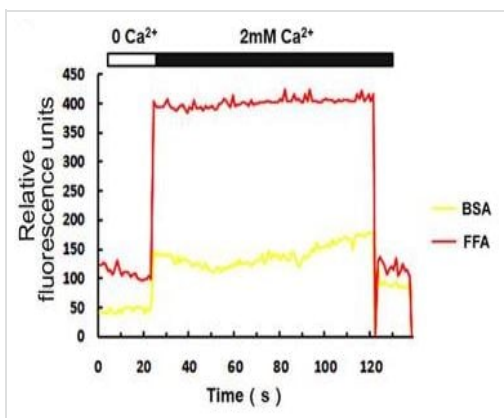
## 来源

Synthetic

## 图片



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



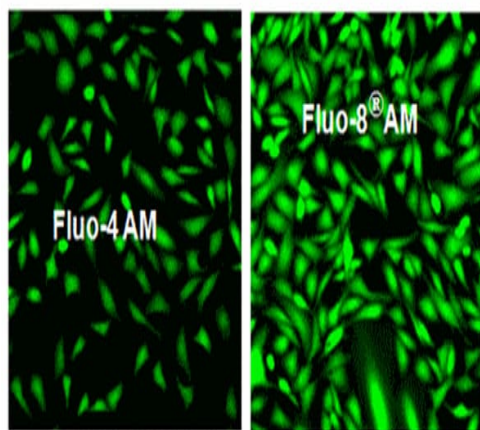
Functional Studies - Fluo-8 AM, green fluorescent calcium binding dye (ab142773)

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 $\text{Ca}^{2+}$ influx to induce ERS in $\beta$ -TC3 cells.

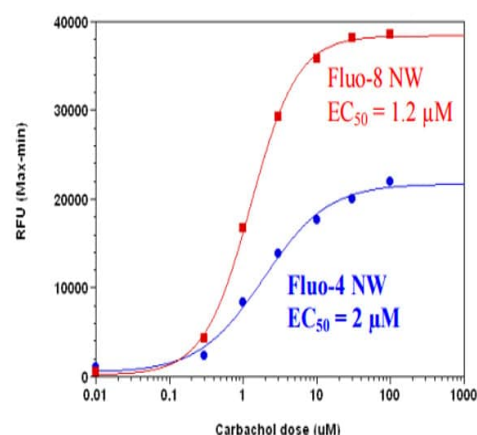
$\beta$ -TC3 cells were incubated with FFA or BSA for 16 h, and then stimulated with  $4 \mu\text{M}$  thapsigargin for 20 min to activate store-operated  $\text{Ca}^{2+}$  entry. Fluorescence densities of  $\text{Ca}^{2+}$  change were monitored in Fluo-8/AM-loaded  $\beta$ -TC3 cells after FFA or BSA 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  $\mu\text{L}$  per well in a 96-well black wall/clear bottom costar plate. The growth medium was removed, and the cells were incubated with 100  $\mu\text{L}$  of 4  $\mu\text{M}$  Fluo-4 AM or Fluo-8<sup>®</sup> AM in HHBS at  $37^\circ\text{C}$ , 5%  $\text{CO}_2$  incubator for 1 hour. The cells were washed twice with 200  $\mu\text{L}$  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.

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES, NOT FOR USE IN HUMANS"

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