

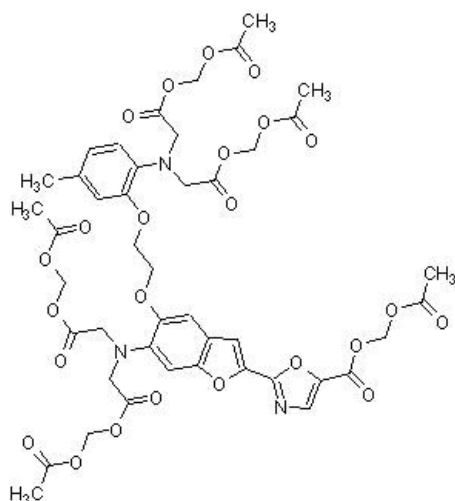
Fura-2 AM, Ca²⁺ selective fluorescent indicator ab120873

[18 References](#) [3 Images](#)

Overview

| | |
|-------------------------------|---|
| Product name | Fura-2 AM, Ca ²⁺ selective fluorescent indicator |
| Description | High affinity Ca ²⁺ selective fluorescent indicator |
| Biological description | High affinity Ca ²⁺ selective fluorescent indicator ($K_d = 145$ nM). Rapidly metabolized by cytoplasmic esterases leading to the active dye Fura 2. Cell-permeable. Excitation spectrum dependent on $[Ca^{2+}]_i$. Ex _{340/380} /Em ₅₀₅ . |
| Purity | > 95% |
| General notes | <p>1 unit = 50 µg</p> <p>1 mg - 1 x 1 mg vial</p> <p>20 units - 20 x 50 µg vials</p> <p>10 units - 10 x 50 µg vials</p> <p>50 µg - 1 x 50 µg vial</p> <p>Related protocols:</p> <p><u>Fura-2 AM imaging protocol</u></p> <p><u>Calcium imaging using Fura-2 AM in motor neurons</u></p> <p><u>Measurement of free cytosolic calcium concentration in single CHO-K1 cells</u></p> |
| CAS Number | 108964-32-5 |

Chemical structure



Properties

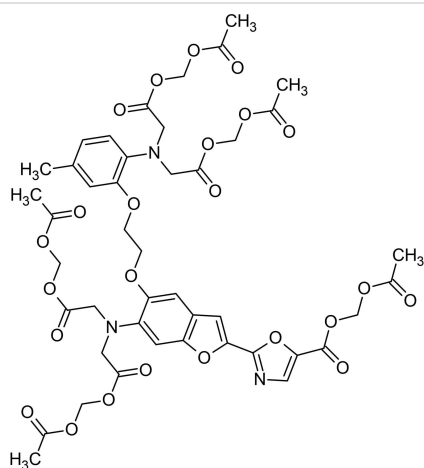
| | |
|----------------------|---|
| Chemical name | 2-[6-[Bis[2-[(acetyloxy)methoxy]-2-oxoethyl]amino]-5-[2-[2-[bis[2-[(acetyloxy)methoxy]-2-oxoethyl]amino]-5-methylphenoxy]ethoxy]-2-benzofuranyl]-5-oxazolecarboxylic acid (acetyloxy)methyl ester |
| Molecular weight | 1001.86 |
| Molecular formula | C ₄₄ H ₄₇ N ₃ O ₂₄ |
| PubChem identifier | 3364574 |
| Storage instructions | Shipped at Room Temperature. Store at -20°C. Store under desiccating conditions. The product can be stored for up to 12 months. |
| Solubility overview | Soluble in DMSO to 10 mM |
| Handling | <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>Need more advice on solubility, usage and handling? Please visit our frequently asked questions (FAQ) page for more details.</p> |
| SMILES | <chem>CC1=CC(=C(C=C1)N(CC(=O)OCOC(=O)C)CC(=O)OCOC(=O)C)OCCOC2=C(C=C3C(=C2)C=C(O3)C4=NC=C(O4)C(=O)OCOC(=O)C)N(CC(=O)OCOC(=O)C)CC(=O)OCOC(=O)C</chem> |
| Source | Synthetic |

Applications

The Abpromise guarantee Our [Abpromise guarantee](#) covers the use of ab120873 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

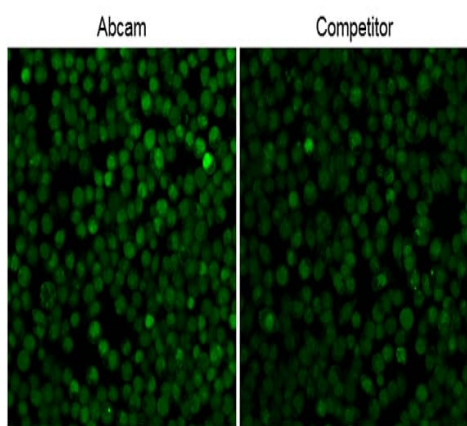
| Application | Abreviews | Notes |
|--------------------|-----------|--|
| Functional Studies | | Use at an assay dependent concentration. |

Images



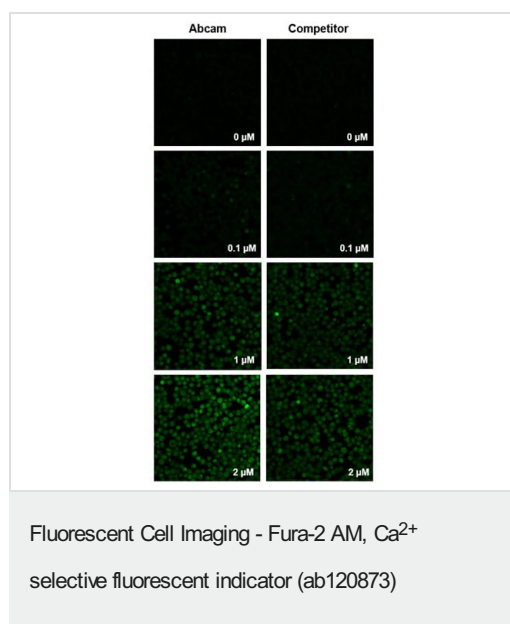
Chemical Structure - Fura-2 AM, Ca^{2+} selective fluorescent indicator (ab120873)

2D chemical structure image of ab120873, Fura-2 AM, Ca^{2+} selective fluorescent indicator



Fluorescent Cell Imaging - Fura-2 AM, Ca^{2+} selective fluorescent indicator (ab120873)

Direct comparison of Abcam and competitor's Fura-2 AM. RAW 264.7 cells were loaded with $2\text{ }\mu\text{M}$ of Fura-2 AM from Abcam (ab120873) and competitor's in a DMSO/ HBSS solution for 30 minutes at room temperature and in the dark. After performing two washes with pre-warmed HBSS the cells were further incubated for 30 minutes at 37°C in the dark. Finally, washes with pre-warmed HBSS were performed and the live cells were imaged on a confocal microscope (using the same exposure settings): excitation laser = 405nm , emission gate center = 519nm .



Direct comparison of Abcam and competitor's Fura-2 AM. RAW 264.7 cells were loaded with different concentrations of Fura-2 AM from Abcam (ab120873) and competitor's in a DMSO/ HBSS solution for 30 minutes at room temperature and in the dark. After performing two washes with pre-warmed HBSS the cells were further incubated for 30 minutes at 37°C in the dark. Finally, washes with pre-warmed HBSS were performed and the live cells were imaged on a confocal microscope (using the same exposure settings): excitation laser = 405nm, emission gate center = 519nm.

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

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