

# PRODUCT INFORMATION



## Fura-2 AM

Item No. 14591

CAS Registry No.: 108964-32-5

Formal 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

Synonym: Fura-2 Acetoxymethyl ester

MF:  $C_{44}H_{47}N_3O_{24}$

FW: 1,001.9

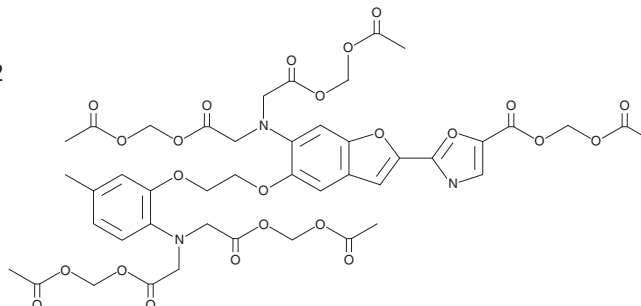
Purity:  $\geq 95\%$

Ex./Em. Max: 340 and 380/510 nm

Supplied as: A solid

Storage:  $-20^{\circ}\text{C}$

Stability:  $\geq 4$  years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Fura-2 AM is supplied as a solid. A stock solution may be made by dissolving the fura-2 AM in the solvent of choice. Fura-2 AM is soluble in DMSO at a concentration of approximately 10 mM.

### Description

Fura-2 AM is a membrane permeable, UV light-excitable form of Fura-2 (Item Nos. 19531 | 20414).<sup>1</sup> It crosses cell membranes and is converted to Fura-2 via cellular esterases.<sup>2</sup> Fura-2 is a ratiometric fluorescent calcium indicator that can be used to detect calcium in cells.<sup>3</sup> It is a pentacarboxylate that displays excitation maxima of 340 and 380 nm at high and low calcium concentrations, respectively, when the emission is fixed at 510 nm, enabling determination of ratiometric measurements of calcium influx in live cells.

### References

1. Sabnis, R.W. *Handbook of biological dyes and stains: Synthesis and industrial applications*. John Wiley & Sons, Inc., Hoboken, NJ, USA (2010).
2. Grynkiewicz, G., Poenie, M., and Tsien, R.Y. A new generation of  $\text{Ca}^{2+}$  indicators with greatly improved fluorescence properties. *J. Biol. Chem.* **260**(6), 3440-3450 (1985).
3. Kong, S.K. and Lee, C.Y. The use of fura 2 for measurement of free calcium concentration. *Biochem. Mol. Biol. Ed.* **23**(2), 97-98 (1995).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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