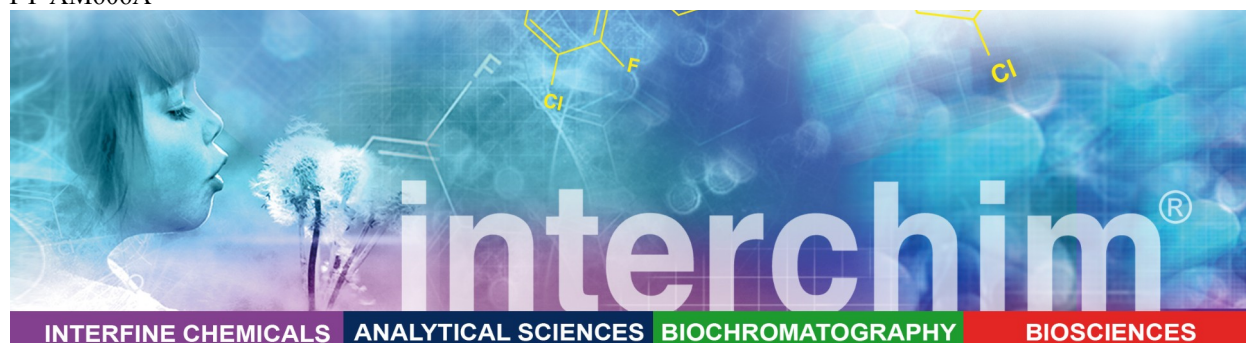


FT-AM606A



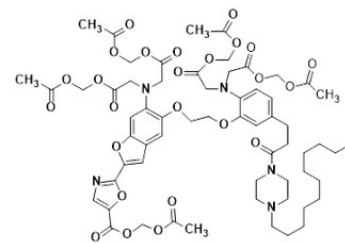
INTERFINE CHEMICALS ANALYTICAL SCIENCES BIOCHROMATOGRAPHY BIOSCIENCES

## Fura-2 Near Membrane (NM) AM

*Near-membrane calcium indicator, Cell-Permeant*

### Product Description

<b>Name :</b>	<b>Fura-2 Near Membrane (NM) AM,</b> near-membrane calcium indicator, Cell-Permeant FFP-18 AM
<b>Catalog Number :</b>	<b>FP-AM606A, 1mg</b> <b>FP-AM606B, 20 x 50 µg</b> <b>FP-AM606C, 10 x 50 µg</b>
<b>Structure &amp; Properties:</b>	<b>MW=</b> 1 296.33 g/mol <b>C<sub>62</sub>H<sub>81</sub>N<sub>5</sub>O<sub>25</sub></b>
physical	<b>Soluble:</b> H <sub>2</sub> O (salt form), DMSO (AM form)
optical	<b>Absorption / Emission:</b> 335 / 505 nm for Ca <sup>2+</sup> bound form, 363 / 512 nm for unbound form
other	<b>K<sub>d</sub> of Ca<sup>2+</sup>-Binding :</b> 400nM
<b>Storage:</b>	-20°C Protect from light and moisture



### Introduction

Unlike other hydrophobic dyes, near membrane dyes have a piperazine collar to latch the dye into the membrane, leaving the chelating portion to measure calcium in the gates. Our near-membrane UV-excitable indicators Fura-2 NearMem (formerly FFP-18), and Indo-1 NearMem (formerly FIP-18), have enjoyed considerable success for their applications, because unlike other hydrophobic indicators, they do not get lost in the membrane.

## Directions for use

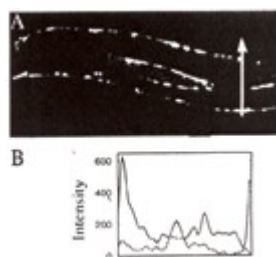


Fig. 6.11

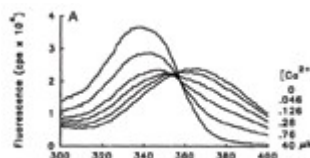


Fig. 6.12

Figure 6.11 shows the distribution of the dye Fura-2 NearMem in the plasma membrane. Figure 6.12 is a plot of fluorescence intensity due to Fura-2 NearMem as a function of the distance from the cell membrane. FIG. 6.12 is a plot of the excitation spectra of a titration of Fura-2 NearMem with calcium, where emission was set at 500 nm.

## Technical and scientific information

### References

- **Carr L. et al.**, Visualisation of an nsPEF induced calcium wave using the genetically encoded calcium indicator GCaMP in U87 human glioblastoma cells, *Bioelectrochemistry*, 119, pp 68-75 (2018)
- **Davies E.V. et al.**, Near membrane  $\text{Ca}^{2+}$  changes resulting from store release in neutrophils: detection by FFP-18, *Cell Calcium*, 19:4, pp 355-362 (1996)
- **Hallett M. B. et al.**, Optical Methods for the Measurement and Manipulation of Cytosolic Calcium Signals in Neutrophils, *Neutrophil*, pp 191-205, Part of the Methods in Molecular Biology book series (MIMB, volume 2087) (2019)
- **Sage S. et al.**, Pericellular  $\text{Ca}^{2+}$  recycling potentiates thrombin-evoked  $\text{Ca}^{2+}$  signals in human platelets, *Physiological Reports Published* Vol. 1 no. e00085 (2013) [Abstract](#)
- **Walford T. et al.**, Nicergoline inhibits human platelet  $\text{Ca}^{2+}$  signalling through triggering a microtubule-dependent reorganization of the platelet ultrastructure, *British Journal of Pharmacology*, Volume 173, Issue 1, Pages 234–247 (2016) [Abstract](#)

### Related products

- Fura-2 AM, FP-42776A
- Fura-2 LR, AM, FP-AM603A
- Fura-FF AM, FP-AM629A

## Ordering information

Catalog size quantities and prices may be found at <http://www.interchim.com>. Please inquire for higher quantities (availability, shipment conditions).

For any information, please ask : FluoProbes® / Interchim; Hotline : +33(0)4 70 03 73 06

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