

Product Information

Furaptra (Mag-Fura-2), tetrasodium salt

Catalog Number: M3001

Packaging Size: 1 mg

Product Description

Color & Form & Solubility: Light yellow solid soluble in water

(pH > 6)

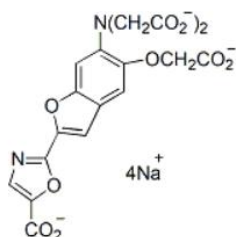
Shelf life: 12 months

λ Ex/ λ Em (pH>6) = 369/511 nm (no Mg²⁺); 330/491 nm (high Mg²⁺)

Molecular formula: C₁₈H₁₀N₂Na₄O₁₁

Molecular weight: 523

Molecular Structural Formula:



Storage

Store desiccated at 4°C and protect from light

Description

Mag-Fura-2 is a UV-excitabile fluorescent indicator for magnesium with a K_d of 1.9 mM. Similar to Fura-2, the excitation wavelength of Mag-Fura-2 undergoes a blue shift from 369 nm to 330 nm. Mag-Fura-2 also responds to Ca²⁺ but with a significantly higher K_d than Fura-2 for Ca²⁺. An important application of Mag-Fura-2 is its use in detecting high, transient Ca²⁺ concentration during Ca²⁺ spikes. Mag-Fura-2, tetrasodium salt can be loaded into cells by microinjection or scrape loading.

Notes

1. Usually when the concentration of calcium ion is in the range of 1-100 μ M or the concentration of magnesium ion is in the range of 0.1-10 mM, the fluorescence indicator effect of this product is the best.
2. Zn²⁺, Cd²⁺ and Gd³⁺ can also be combined with the fluorescent indicator, which may interfere with the experiment.

