

Product Information

Furaptra (Mag-Fura-2), Tetrapotassium salt

Catalog Number: M3009

Product Size: 1 mg

Parameters

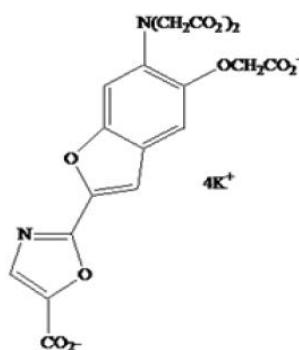
Appearance: Light yellow solid soluble in water (PH > 6)

CAS No.: 132319-57-4

Molecular Formula: $C_{18}H_{10}K_4N_2O_{11}$

Molecular Weight: 587

Molecular Structure:



Storage

Store at -20°C and protect from light. When stored as directed, product is stable for at least 12 months.

Description

Mag-Fura-2 is a UV-excitable 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 Ca^{2+} but with a significantly higher K_d than Fura-2 for Ca^{2+} . An important application of Mag-Fura-2 is its use in detecting high, transient Ca^{2+} concentration during Ca^{2+} spikes. Mag-Fura-2/tetraammonium salt can be loaded into cells by microinjection or scrape loading.

Notes

1. Mg^{2+} indicators are sensitive to Mg^{2+} concentrations from 0.1 to 10 mM and Ca^{2+} concentrations from 1 to 100 mM
2. Zn^{2+} , Cd^{2+} and Gd^{3+} can also bind to the fluorescent indicator, which may interfere with the experiment.

