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Furaptra (Mag-Fura-2), AM Ester

Furaptra, AM ester is a membrane-permeant form of Furaptra (Mag-Fura-2). The indicator is loaded into cells via simple incubation.



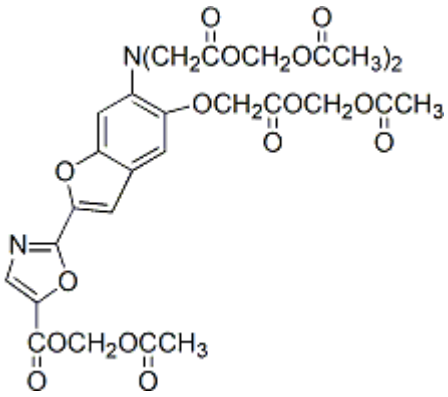
Product attributes

CAS number	130100-20-8
Cell permeability	Membrane permeant
Indicator type	Ratiometric
Colors	Green
Excitation/Emission	369/511 nm (no Mg2+); 330/491 nm (high Mg2+)(after hydrolysis)

Product Description

Furaptra, AM ester is a membrane-permeant form of Furaptra (Mag-Fura-2). The indicator is loaded into cells via simple incubation. Because of the relatively low water solubility of the AM ester, the mild detergent Pluronic® F-127 (cat# 59004) is often used as a dispersing agent to facilitate cell loading. See information for Mag-Fura-2, tetrapotassium salt (cat# 50035).

- Light yellow solid soluble in DMSO
- Store at -20°C and protect from light
- $C_{30}H_{30}N_2O_{19}$
- MW: 723



BAPTA-based ion indicators like Furaptra have been shown to be fixable in situ by EDC/EDAC (cat# 59002). The fixation of indicator dyes is useful for downstream immunofluorescence and IHC studies (Cell Calcium 1997, 21(3), 175).

As the indicator does not covalently bind to cellular components, it may be actively effluxed from the cell by organic anion transporters. The rate of efflux increases with temperature, and may vary between cell types, resulting in variable retention times of a few minutes to hours. Experiments using indicators in cells usually are performed within one or two hours of loading, but it may be possible to re-load cells with indicator if needed. The organic anion transporter inhibitor Probenecid (#50027) can be used to slow the rate of indicator efflux from cells.

Pluronic is a registered trademark of BASF.

References

1. Methods Cell Biol, 99, 113, (2021), DOI: 10.1016/B978-0-12-374841-6.00005-0