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Zinquin ethyl ester

Zinquin is an UV-excitable, blue fluorescent zinc indicator. Zinquin ethyl ester is membrane-permeable and is hydrolyzed into Zinquin free acid once entering cells.

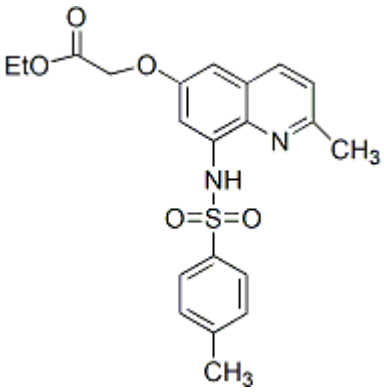
Product attributes

CAS number	181530-09-6
Cell permeability	Membrane permeant
Colors	Blue
Excitation/Emission	364/485 nm (with Zn2+) (after hydrolysis)

Product Description

Zinquin is an UV-excitable, blue fluorescent zinc indicator. Zinquin ethyl ester is membrane-permeable and is hydrolyzed into Zinquin free acid once entering cells. Zinc is believed to be involved in the suppression of apoptosis and thought to play important roles in many neural activities.

- λEx/λEm (with Zn^{2+})= 364/485 nm (after hydrolysis)
- Off-white solid soluble in DMSO
- Store at 4°C and protect from light
- $C_{21}H_{22}N_2O_5S$
- MW: 414.48.
- [181530-09-6]



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.

References

1. Biochem J, 303, 781 (1994), DOI: 10.1042/bj3030781
2. Biochem J, 296, 403 (1993), DOI: 10.1042/bj2960403
3. Methods Cell Biol, 99, 113, (2021), DOI: 10.1016/B978-0-12-374841-6.00005-0