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MQAE

MQAE (N-(Ethoxycarbonylmethyl)-6-methoxyquinolinium bromide) is an improved chloride indicator that has greater sensitivity to chloride than SPQ, and higher fluorescence quantum yield.

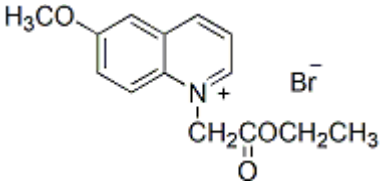
Product attributes

CAS number	162558-52-3
Cell permeability	Membrane permeant
Colors	Blue
Excitation/Emission	350/460 nm

Product Description

MQAE (N-(Ethoxycarbonylmethyl)-6-methoxyquinolinium bromide) is an improved chloride indicator that has greater sensitivity to chloride (K_{sv}= 200M^{-1}) than SPQ (K_{sv}=118 M^{-1}) and higher fluorescence quantum yield. The ester group of MQAE may slowly hydrolyze inside cells, resulting in a change in its fluorescence response.

- White solid soluble in water and DMSO
- Store at 4°C and protect from light, especially in solution
- $\lambda_{Ex}/\lambda_{Em}$= 350/460 nm
- ε (344 nm, H_2O) = 2,800
- $C_{14}H_{16}BrNO_3$
- MW: 326.19
- [162558-52-3]



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

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