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Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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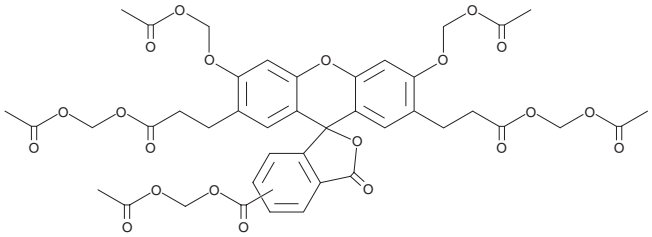
PRODUCT INFORMATION

BCECF AM

Item No. 15922

Formal Name: 3',6'-*bis*[(acetyloxy)methoxy]-5(or 6)-[[(acetyloxy)methoxy]carbonyl]-3-oxo-spiro[isobenzofuran-1(3H),9'-[9H]xanthene]-2',7'-dipropanoic acid, 2',7'-*bis*[(acetyloxy)methyl] ester
Synonym: BCECF Acetoxymethyl ester
MF: $C_{42}H_{40}O_{21}$
FW: 880.7
Purity: ≥95%
Ex./Em. Max: 440, 490/535 nm
Supplied as: An oil
Storage: -20°C
Stability: ≥4 years
Special Conditions: Protect from light and moisture



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

BCECF AM is supplied as an oil. A stock solution may be made by dissolving the BCECF AM in the solvent of choice. BCECF AM is soluble in organic solvents such as acetonitrile, DMSO, and dimethyl formamide.

Description

BCECF AM is a widely-used fluorescent indicator for estimating intracellular pH.[1,2] This membrane-permeant compound is modified by intracellular esterases to produce BCECF, a polar fluorescein derivative that is retained by cells. Intracellular BCECF is stable and has an efflux half-life of greater than two hours.[3] Intracellular pH measurements are made by ratio imaging, which involves determining the pH-dependent ratio of emission intensity (detected at 535 nm) when the dye is excited at 490 nm *vs.* the emission intensity when excited at 440 nm.[2,4] This approach is amenable to either spectrofluorometry or flow cytometry.[2,5] BCECF AM can also be used to investigate intracellular changes in other ions, including potassium.[6]

References

1. Rink, T.J., Tsien, R.Y., and Pozzan, T. Cytoplasmic pH and free Mg^{2+} in lymphocytes. *J. Cell Biol.* **95(1)**, 189-196 (1982).
2. Ozkan, P. and Mutharasan, R. A rapid method for measuring intracellular pH using BCECF-AM. *Biochim. Biophys. Acta* **1572(1)**, 143-148 (2002).
3. Dive, C., Cox, H., Watson, J.V., *et al*. Polar fluorescein derivatives as improved substrate probes for flow cytoenzymological assay of cellular esterases. *Mol. Cell Probe* **2(2)**, 131-145 (1988).
4. O'Connor, N. and Silver, R.B. Ratio imaging: Practical considerations for measuring intracellular Ca^{2+} and pH in living cells. *Methods Cell Biol.* **81**, 415-433 (2007).
5. Chow, S., Hedley, D., and Tannock, I. Flow cytometric calibration of intracellular pH measurements in viable cells using mixtures of weak acids and bases. *Cytometry* **24(4)**, 360-367 (1996).
6. Balkay, L., Márián, T., Emri, M., *et al*. Flow cytometric determination of intracellular free potassium concentration. *Cytometry* **28(1)**, 42-49 (1997).

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