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## BCECF AM, green fluorescent pH indicator

<http://www.lumiprobe.com/p/bcecf-am>

BCECF AM (2',7'-bis-(2-carboxyethyl)-5-(and-6)-carboxyfluorescein acetoxymethyl ester) is a cell-permeant, dual-excitation ratiometric fluorescent indicator for measuring changes in the intracellular pH.

Cytosolic esterases hydrolyze BCECF AM to yield BCECF, a polar fluorescein derivative held by cells. BCECF is stable in the cells and has an efflux half-life of over two hours. Intracellular pH is estimated by determining the pH-dependent ratio of emission intensity at 535 nm when the dye is excited at 490 nm vs. the emission intensity when excited at 440 nm. This approach can be carried out using spectrofluorometry or flow cytometry methods.

BCECF AM can also be used to investigate intracellular changes in other ions, including potassium.

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### General properties

Appearance: white powder

Molecular weight: 1112.96

CAS number: 117464-70-7

Molecular formula:  $C_{60}H_{40}O_{22}$

IUPAC 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.

Solubility: DMSO, ethyl acetate, toluene, acetonitrile

Quality control: NMR  $^1H$  and HPLC-MS (95+%)

Storage conditions: 24 months after receipt at -20°C in the dark. Transportation: at room temperature for up to 3 weeks. Desiccate.

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