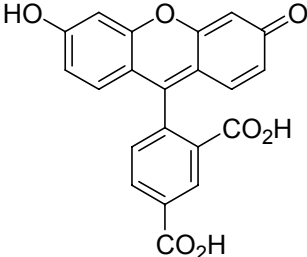


## 5-Carboxyfluorescein (single isomer)

## Instruction Manual

Catalog Number	PK-CA707-51019
Description	Free acid form of 5-carboxyfluorescein single isomer. 5-FAM is one of the most popular green fluorescent reagents used for in situ labeling peptides, proteins and nucleotides. It has also been used to prepare various small fluorescent molecules.
Quantity	100 mg
Excitation / Emission Maxima	$\lambda_{exc}/\lambda_{em}$ (pH 9.0) = 492/514 nm; Extinction coefficient $\epsilon$ = 82,000 (pH 9.0)
Molecular Structure	
Molecular Weight / Molecular Formula	376.3 Da; C <sub>21</sub> H <sub>12</sub> O <sub>7</sub>
Purity	>98% (as determined by HPLC)
Appearance / Formulation / Solubility	Yellow-orange solid. Soluble in pH>6.5 H <sub>2</sub> O (carboxyfluorescein is not soluble in pure water but highly soluble in a >pH 6.5 buffer. Please note that the buffering strength of the buffer has to be sufficient so that the pH stays the same after the dye is dissolved. Alternatively, you may suspend the solid dye in pure water and then add 1 to 2 equivalent of a base - such as NaOH to dissolve the dye). Solution of the dye may be stored at 4°C or -20°C for at least 3 months.
Storage & Stability	Store at 4°C. Protect from light (especially when in solution).
Applications	Fluorescent pH indicator. 5-Carboxyfluorescein has a pK <sub>a</sub> of 6.5 and can be used as a pH sensor. The excitation spectrum of the dye responds to pH similarly to that of BCECF. Carboxyfluorescein can also be used as a tracer dye. The dye is membrane-impermeant and can be loaded into cells by microinjection or scrape loading.
References	<ol style="list-style-type: none"> <li>1. Electrophoresis 22, 2691-700(2001)</li> <li>2. Anal Biochem 243, 15-27 (1996)</li> <li>3. Bioconjug Chem 6, 447-458 (1995)</li> </ol>
Caution	Potentially harmful. Avoid prolonged or repeated exposure. Avoid getting in eyes, on skin, or on clothing. Wash thoroughly after handling. If eye or skin contact occurs, wash affected areas with plenty of water for 15 minutes and seek medical advice. In case of inhaling or swallowing, move individual to fresh air and seek medical advice immediately.

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