

Certificate of Analysis

Fluorometric Chlorophyll Standards

12 July 2021

Lot CAS 167-03

Parent Stock Solution A:

Spectrophotometric Data: 3 June 2021

$Ab_{S_{664}} = 0.87366$

$Ab_{S_{750}} = -8.5602 \cdot 3$

Chlorophyll concentration determination (Jeffrey Method, 1997)

High Concentration, Chlorophyll Solution B:

Chlorophyll a = 228 $\mu\text{g/L}$

Raw Fluorescence Signal = 1140 FS

Low Concentration, Chlorophyll Solution C:

Chlorophyll a = 23.8 $\mu\text{g/L}$

Raw Fluorescence Signal = 117.6 FS

Chlorophyll powder isolated from *Anacystis nidulans* is dissolved in 90% acetone and spectrophotometrically analyzed using Jeffrey Method (1997) to determine concentration of parent stock solution. Parent stock solution is diluted to create two chlorophyll standard solutions, B and C. Fluorescence signal of the resulting solutions is checked to confirm accuracy of dilution and twenty milliliters of each chlorophyll solution, B and C, is sealed in its own ampoule and stored in the dark at temperatures below -20° Celsius. Concentrations stated for chlorophyll solutions B and C are guaranteed up to a year from the date of this certificate if ampoules are stored unbroken, in the dark, at temperatures below -20° Celsius. Chlorophyll degradation depends on handling of the standards after ampoules are opened. Subdued light is recommended when standardizing fluorometers using these standards. Standards should be warmed to room temperature before use.



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Date