



Products Accessories

Primary Chlorophyll Standards

Liquid Primary Chlorophyll a Standards (Part No. 10-850)

Preparing primary chlorophyll a standards for fluorometry can be challenging, as well as time consuming. Traditionally, pure chlorophyll a is purchased from a manufacturer or purified via HPLC. Then, an initial dilution of this pure extract is measured using a spectrophotometer to determine the exact concentration, before diluting to the range for a fluorometer. Stability of the final standard is also a concern, since it is temperature sensitive as well as photosensitive. Turner Designs offers a solution to this challenging and time consuming process.

Features of the Liquid Primary Chlorophyll Standards

- **Saves Time and Money.** Spectrophotometrically determining the chlorophyll concentration is capital and labor intensive. The concentration of the liquid standards offered by Turner Designs has already been determined with a spectrophotometer.
- **Simple and Accurate.** Turner Designs liquid chlorophyll standards are sealed in an ampule and ready to use. This eliminates the need to purchase, measure, or prepare raw chlorophyll for standards. Measurements are simplified and accuracy is improved.
- **Guaranteed.** If stored properly, the liquid chlorophyll standards are guaranteed for two months after arrival in your lab.*
- **Documented.** Each set of liquid standards comes with a certified concentration and certificate of analysis for reference.

Turner Designs Offers Solutions

Chlorophyll a prepared in 90% acetone/10% distilled water for extractive analysis is now available from Turner Designs. The set of two ready-to-use liquid fluorometric standards consists of one high-level and one low-level concentration. Standards are essentially free from chlorophyll *b* and are diluted with solvents that are free of contaminants that can cause background fluorescence.

*Standards must be stored at -20° C in their original foil wrap and opened under subdued lighting conditions.

Three Simple Steps to Calibrating:

1. Break the ampule.
2. Pour the contents of the ampule into a cuvette.
3. Calibrate your fluorometer.

Chlorophyll a Concentration Specifications:

Parent Standard (kept by Turner Designs for Q.C.): 1 mg/L. Concentration determined using a spectrophotometer and the Lorenzen monochromatic equations. Standard purity measured through HPLC analysis.

High Fluorometric Standard: 20 ml of approximately 155 µg/L

Low Fluorometric Standard: 20 ml of approximately 15.5µg/L

The concentration of each lot will vary, but the final concentration will be listed on the certificate of analysis and reported to three significant figures.

Turner Designs manufactures more fluorometers and research grade luminometers than any other company in the world.

fluorometer.com*mitted*TM