

## Certificate of Calibration

### *Phycocyanin and Chlorophyll-a Fluorometer*

**Model No.: FQD-PC-CHL/IV-RATIO-C**

**Serial No.: DE060505, DF070103**

**Date: 4/3/2021**

#### **Calibration method:**

**Phycocyanin:** Phycocyanin powder isolated from *Spirulina Platensis* mixed with stabilizing agent is dissolved in distilled water and spectrophotometrically analyzed using Bennet and Bogorad Method (1973) to determine the phycocyanin concentration. The solution is further diluted by 20x in distilled water. The final solution is used to calibrate the fluorometer.

**Chlorophyll-a:** Chlorophyll-a powder isolated from *Anacystis nidulans* is dissolved in 100% acetone and spectrophotometrically analyzed using Jeffrey Method (1995) to determine the chlorophyll-a concentration. The solution is further diluted by 20x in 100% acetone. The final solution is used to calibrate the fluorometer.

#### **Calibration result:**

##### **Phycocyanin:**

Initial solution: Spectrophotometer measurement: Abs<sub>615</sub> = 0.716 and Abs<sub>652</sub> = 0.202

Phycocyanin concentration = 116150 ppb (Bennet and Bogorad Method, 1973).

Final solution: Dilute solution by 20x.

Phycocyanin concentration = 5802 ppb.

##### **Chlorophyll-a:**

Initial solution: Spectrophotometer measurement: Abs<sub>664</sub> = 0.606

Chlorophyll-a concentration = 6874 ppb (Jeffrey method, 1995).

Final solution: Dilute solution by 20x.

Chlorophyll-a concentration = 343.7 ppb.

Quality control manager:

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Clement Huang