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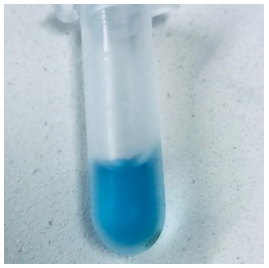
Phycocyanin Extraction from Synechocystis



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Protocol status: Working
We use this protocol and it's working

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Abstract

Extraction of Phycocyanin from Synechocystis liquid culture.

Materials

MATERIALS

- 0.5mm diameter glass beads **Scientific Industries, Inc. Catalog #**SI-BG05
- Phosphate Buffered Saline **Thermo Fisher Scientific Catalog #**28374

1 **Collect 1 ml** *Synechocystis* liquid culture and **spin it down** at **14,000 g** for 5 **min**. **Discard** the supernatant and keep the pellets cool.
00:05:00 Centrifugation

2 **Fill** a **1.5 ml Eppendorf Tube** with **400 ml glass beads (~0.5 mm)** for each sample.

3 **Resuspend** the pellet from step 1 in **1 ml** PBS Buffer (pH = 7.4). Transfer the solution into the prepared 1.5 ml tubes filled with glass beads. Keep the solution cool.

4 Thoroughly **vortex** each sample for **1 min**. **Repeat** the process **five times**.
The supernatant should become blue-green and clear.

00:01:00 Vortex

5 **Spin down** your vortexed sample for **5 min** at **3,000 g** at **4 °C**. **Transfer** the supernatant into a fresh **2 ml Eppendorf tube** and keep the supernatant cool.
00:05:00 Centrifugation

6 **Spin down** your supernatant again at **14,000 g** for **20 min** at **4 °C**.
00:20:00 Centrifugation

7 **Transfer** the supernatant into a cuvette. The supernatant should appear clearly blue at this stage. Measure the extinction at **620 nm**. Use PBS as a blank.