



Product Data Sheet

Product Name: C-Phycocyanin

Catalog Number: AS-82003

Size: 1 mg

Lot Number: See label on vial

Description: C-Phycocyanin (C-PC)¹ occurs as the major phycobiliprotein in many cyanobacteria and as a secondary phycobiliprotein in some red algae. The pigment has a single visible absorption maximum at 620 nm and a fluorescence emission maximum at ~642 nm. It shows two bands corresponding to α (21,360 Da) and β (18,980 Da) subunits on SDS-PAGE². These two subunits usually occur in equal numbers, but the exact number of α and β pairs may vary among the species.

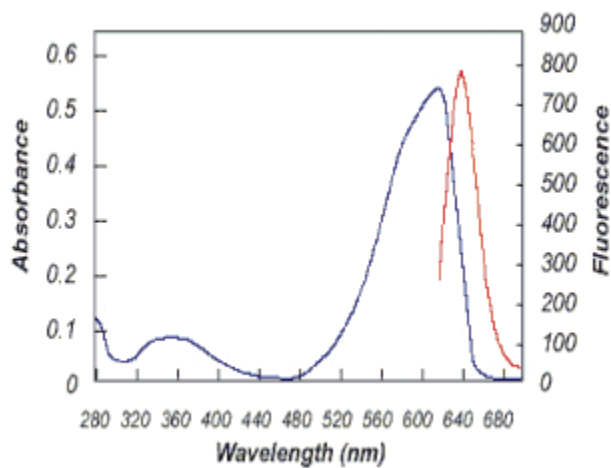
In addition to absorbing light directly, this intensely blue pigment accepts quanta from phycoerythrin (Cat# AS-82001 and Cat# AS-82004) by fluorescent energy transfer in organisms in which PE is present. The red fluorescence of C-PC can be further transferred to allophycocyanin (Cat# AS-82000).

The molar extinction coefficient of C-PC at 620 nm is $1.54 \times 10^6 \text{ cm}^{-1}\text{M}^{-1}$. C-PC is supplied in sodium phosphate buffer, pH 7.0, with ammonium sulfate. The protein is very stable and can be stored for years in this buffer.

Before use, centrifuge the C-PC suspension at 10,000 g for 10 min at 4°C. Discard the supernatant and resuspend the pellet into the desired buffer. Store C-PC and C-PC related conjugates at 4°C and keep away from light.



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Molecular Weight: 242 kDa

Fluorescence: Red

Maximum absorption: 620 nm

Maximum emission: 642 nm

Storage: 4°C (Do NOT freeze!)

References:

1. S. A. Pizarro and K. Sauer, Photochem.Photobiol. 73, 556-563 (2001).
2. K. M. Minkova et al., J.Biotechnol. 102, 55-59 (2003).

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