PROzyme®

NOTICE: ProZyme was purchased by Agilent in July 2018. Documents for products and product lots manufactured before August 2019 will contain references to ProZyme. For more information about these products and support, go to: **www.agilent.com/en/contact-us.**

Agilent

GLYKO®

C-PHYCOCYANIN

SPECIFICATIONS

Product Code: PB11
Concentration: ≥10 mg/ml
Purity: A_{620}/A_{280} >4.0
Shipped with ice pack for next day delivery.
Store at 4°C in dark. **DO NOT FREEZE.**
Formulation: Protein is supplied as a suspension in 50 mM potassium phosphate (pH 7.0) with 60% ammonium sulfate.
Stability: Stable at least 12 months when stored properly.

PhycoPro™ PB11 C-Phycocyanin is a phycobiliprotein isolated from Spirulina sp., a blue-green algae. Like other phycobiliproteins, PB11 C-Phycocyanin is fluorescent, with an extremely high absorbtivity, a high quantum efficiency, a large Stokes shift and excitation and emission bands at visible wavelengths. It is a stable protein which can be easily linked to antibodies and other proteins by conventional protein cross-linking techniques without altering its spectral characteristics.

Because of their properties, phycobiliproteins have been used in a variety of immunological assays and as fluorescent labels for cell-sorting. In addition, because of the high molar absorbtivity of PB11 C-Phycocyanin and other phycobiliproteins at visible wavelengths (see Figure 1), they are convenient markers in such applications as gel electrophoresis, isoelectric focusing and gel exclusion chromatography.

CHARACTERISTICS

Molecular Weight: 232,000 daltons

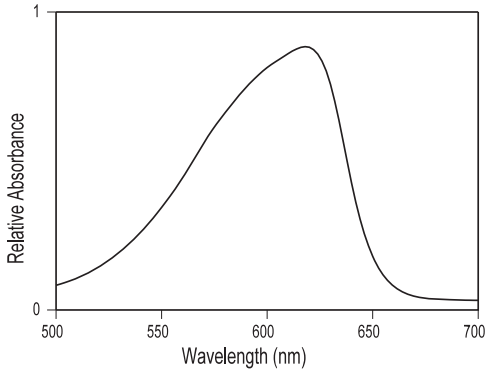
Composition: The protein has an $(\alpha\beta)_6$ composition. Both α- and β-subunits are approximately 20,000 daltons.

Purity: $A_{620}/A_{280} > 4.0$

Absorption Maximum: 620 nm

Emission Maximum: 647 nm

Extinction Coefficient: $E^{1\%}_{620} = 70$



Isoelectric Point: 4.65

Origin: USA

These suggestions and data are based on information we believe to be reliable. They are offered in good faith, but without guarantee, as conditions and methods of use of our products are beyond our control. We recommend that the prospective user determine the suitability of our materials and suggestions before adopting them on a commercial scale.

Suggestions for use of our products or the inclusion of descriptive material from patents and the citation of specific patents in this publication should not be understood as recommending the use of our products in violation of any patent or as permission to license to use any patents of ProZyme, Inc.

Notes on Specifications:

The ratio of absorbance at the absorbance maximum of C-phycocyanin (CPC) to absorbance at 280 nm ($A_{\lambda max}/A_{280}$) is indicative of the purity of the preparation with respect to most forms of contaminating protein. Absorbance at 280 nm in these preparations is primarily due to aromatic amino acids, and this is roughly proportional to the overall concentration of protein in solution, including c-phycocyanin. Absorbance at the absorbance maximum reflects only the concentration of CPC. In addition, however, $A_{\lambda max}/A_{280}$ also indicates the condition of the phycobiliprotein itself, since highly purified samples of CPC can vary significantly in this respect. These differences reflect handling, time of storage and the source of the original raw material; reductions in this ratio probably reflect deterioration of chromophores.

REFERENCE

Boussiba, S. and A. E. Richmond. C-Phycocyanins as a storage protein in the blue-green alga Spirulina platensis. Arch. Microbiol. 125:143–147 (1980).

Glazer, A. N. Phycobilisomes: structures and dynamics. Ann. Rev. Microbiol. 36:173–198 (1982).

Kronick, M. N. The use of phycobiliproteins as fluorescent labels in immunoassay. J. Imm. Meth. 92:1–13 (1986).

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