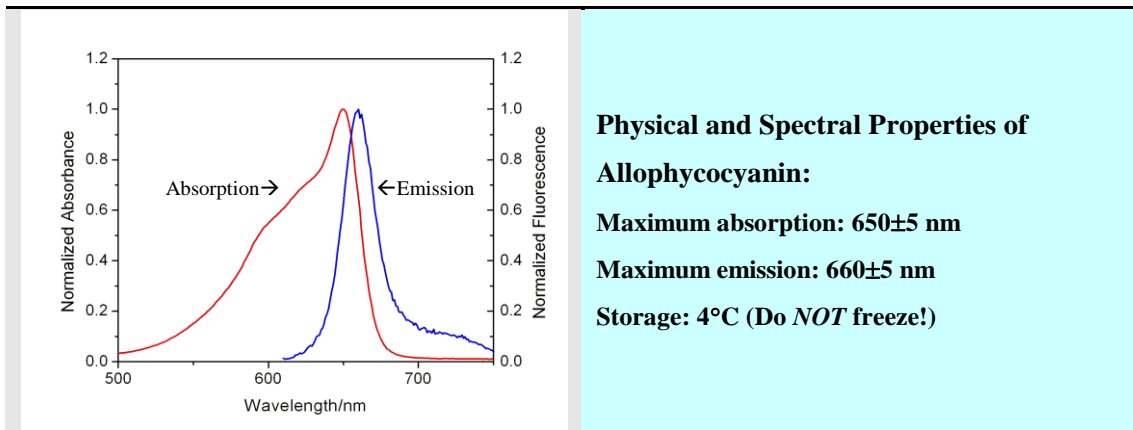




SMCC Activated CL-Allophycocyanin (Cross-linked APC)



Catalog Number: **AS-72108**

Size: **1 mg**

Concentration: **1mg /mL**

Description: APC (Allophycocyanin),¹⁻³ highly soluble and fluorescent protein, belongs to the phycobiliprotein family derived from cyanobacteria and eukaryotic algae. APC is made up of alpha and beta subunits and is present as a trimer ($\alpha\beta$)₃.⁴ The trimer is unstable and susceptible to dissociation at low concentrations. The monomer, $\alpha\beta$, has a lower fluorescence quantum yield compared to the trimer and the maximal absorption is shifted to 620 nm.⁵ The chemically cross-linked APC (CL-APC) trimer is much more stable than the native protein, but still retains comparable spectroscopic properties. The extinction coefficient of CL-APC at 650 nm is 700,000 cm⁻¹M⁻¹.

APC is an ultra-sensitive fluorescent tracer because of its high emission quantum yields. Its near-infrared fluorescence is relatively free of interference from the autofluorescence of cellular components and other biological materials. It is significantly more sensitive than conventional organic fluorophores and has been used in applications such as flow cytometry, homogeneous FRET assay and immunoassays.^{6,7}

SMCC Activated CL-APC, with a maleimide group introduced, allows it to be conveniently conjugated to the thiol groups of proteins, without the need for additional activation.

SMCC Activated CL-APC is supplied in MES buffer, pH 6.0 with EDTA and preservative. The SMCC activated protein is stable for ~12 months at 4°C if kept from light.

References

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