

What does the “R” in R-Phycoerythrin stand for?

Originally, these subdivisions, identified by letter prefixes to the phycobiliprotein name (e.g. C-phycoerythrin, abbreviated CPC) indicated the taxa of the organisms from which the pigments were isolated. For example, R-phycoerythrin (RPE) was first isolated from the Rhodophyta; B-phycoerythrin (BPE) from the Bangiales; and C-Phycoerythrin (CPE) from cyanobacteria. Further research has shown, however, that specific phycobiliprotein types are not always restricted to specific taxa. In fact, there is a full continuum of spectral types of phycoerythrins, determined by the relative abundance of specific chromophores. Thus, letter prefixes applied to phycobiliproteins are currently only a general indication of the shape of the absorbance curve (see Figure 1), and similarly named pigments isolated from different sources should not be assumed to be identical.

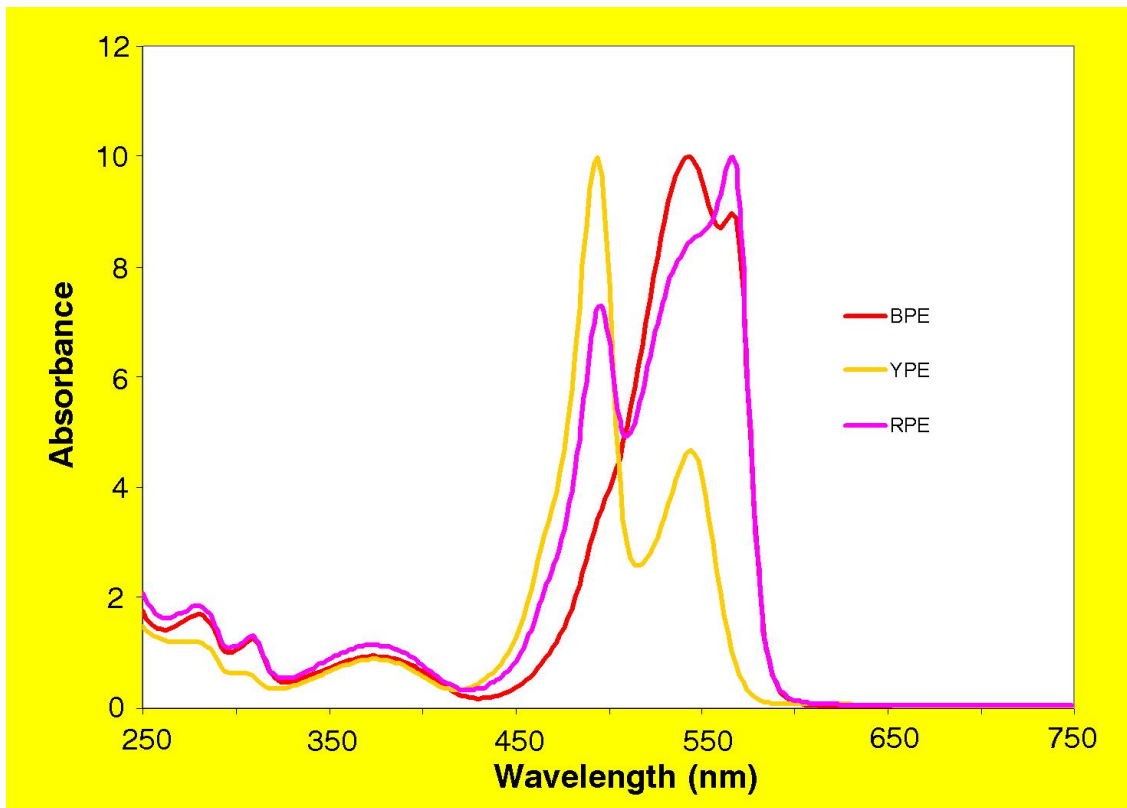


Figure 1 - Relative Absorbance Spectra for PB31 R-Phycoerythrin (RPE), PB70 B-Phycoerythrin (BPE) and PB80 Y-Phycoerythrin (YPE)