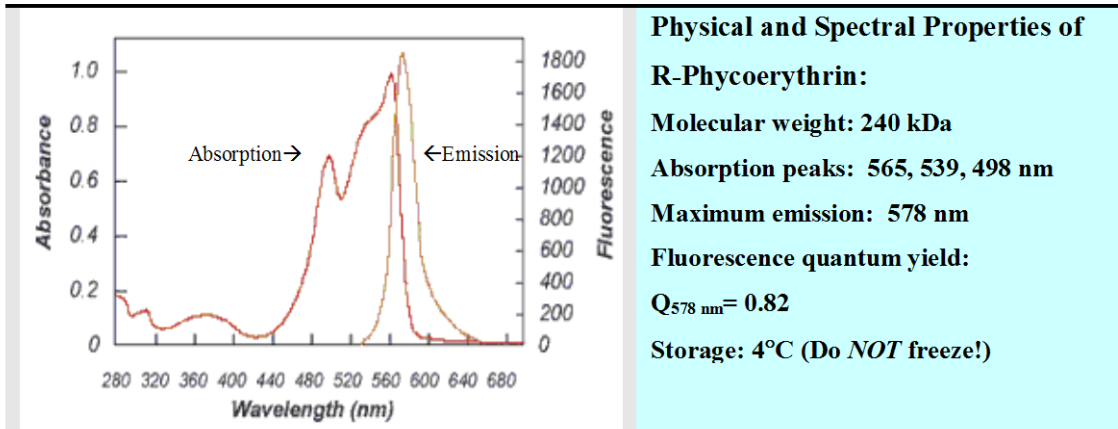


R-Phycoerythrin



Catalog Number: AS-82004

Size: 1 mg

Description: R-PE (R-Phycoerythrin),¹ a fluorescent protein, belongs to the phycobiliprotein family of highly soluble and fluorescent proteins derived from cyanobacteria and eukaryotic algae. R-PE is made of α , β and γ subunits and is present as $(\alpha\beta)_6\gamma$. The polymer is very stable since it does not dissociate even when diluted to 10^{-12} M.

The protein has broad absorption bands with peaks at 565 nm ($\epsilon_M = 1.96 \times 10^6 \text{ M}^{-1}\text{cm}^{-1}$), 498 nm ($\epsilon_M = 1.53 \times 10^6 \text{ M}^{-1}\text{cm}^{-1}$), and 539 nm ($\epsilon_M = 1.62 \times 10^6 \text{ M}^{-1}\text{cm}^{-1}$); consequently, it can be excited with versatile excitation sources. The broad excitation spectrum provides the advantage for multi-color immunofluorescent staining or cell sorting. For example, a sample labeled with fluorescein and R-PE can be excited with a single light source at 488 nm but detected at 520 nm and 575 nm, respectively. R-PE and the closely related B-PE are the most intensely fluorescent phycobiliproteins. They are significantly brighter and more photostable than conventional organic fluorophores.²

R-PE 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 R-PE suspension at 10,000g for 10 min at 4°C. Discard the supernatant and resuspend the pellet (R-PE) into the desired buffer. Desalt the sample using either Sephadex G-25 or dialysis. Store R-PE at 4°C and keep away from light.

References

1. Glazer, AN. and L. Stryer, *Methods Enzymol.* 184, 188 (1990).
2. Oi, VT. et al. *J. Cell Biol.* 93, 981 (1982).

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