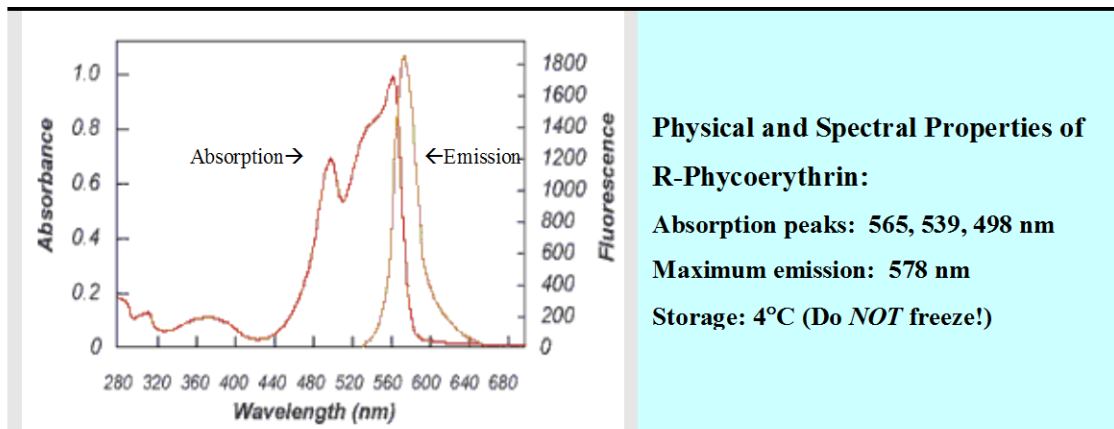


## SMCC Activated R-Phycoerythrin



**Catalog Number:** AS-72110

**Size:** 1 mg

**Concentration:** 1mg/ml

**Description:** R-PE (R-Phycoerythrin),<sup>1</sup> 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  $\alpha$ ,  $\beta$  and  $\gamma$  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 ( $\epsilon_M = 1.53 \times 10^6 \text{ M}^{-1}\text{cm}^{-1}$ ), 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 also 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 with orange fluorescence. They are significantly brighter and more photostable than conventional organic fluorophores.<sup>2</sup>

SMCC Activated R-PE, 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 R-PE is supplied in MES buffer, pH 6.0 with EDTA and preservative. It is stable for ~12 months at 4°C if kept 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).