

# Red Fluorescent Protein - R-PE (R-Phycoerythrin)

CATALOG #: 6005-1 1 mg  
6005-5 5 mg

**SOURCE:** R-PE is a phycobiliprotein purified from Febico's proprietary red algae. It is made up of ( $\alpha\beta$ ) 6 $\gamma$  subunit structure.

**PURITY:** A566/A280  $\geq$  5.5  
A566/A498  $\leq$  1.5

**IMPURITY:** A620/A566  $\leq$  0.005

**MOL. WEIGHT:** ~ 240 kDa

**ABSORPTION MAXIMUM:** 566 nm

**EMISSION MAXIMUM:** 575 nm

**EXTINCTION COEFFICIENT:**  $1.96 \times 10^6 \text{ cm}^{-1} \text{ M}^{-1}$

**QUANTUM YIELD:** 0.84

**FORM:** Suspension

**FORMULATION:** R-PE is supplied in 100 mM Potassium Phosphate buffer, pH 7.0 with 60% Saturated  $(\text{NH}_4)_2\text{SO}_4$ , 1 mM EDTA and 1 mM Sodium Azide. The protein is very stable and can be stored in this buffer for many years.

**STORAGE CONDITIONS:** Store R-PE in dark at ~ 2-8°C. **Do not freeze.**

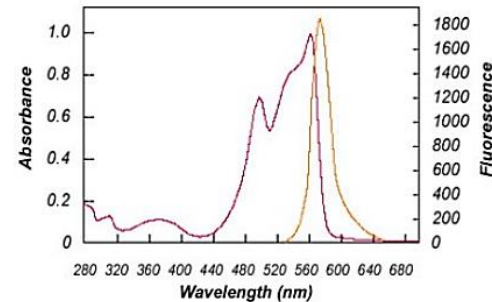
**USAGE:** Before use, centrifuge the R-PE suspension at 10,000g for 10 min at 4°C. Discard the supernatant and resuspend the pellet (R-PE) into the desired buffer. R-PE is stored in a salt solution and it must be extensively dialyzed (Can use BioVision's [Dialyzer tubes](#)) or desalted in columns (BioVision Cat # 6564-25) prior to use, to remove any remaining ammonium sulphate.

## APPLICATIONS/ADVANTAGES:

- Can be cross linked or conjugated to other molecules to make fluorescent probes.
- Useful as a fluorescence-based indicator for the presence of cyanobacteria.
- Can be used for a variety of immunofluorescence applications.
- A useful fluorophore in various electrophoretic procedures.

**DESCRIPTION:** R-phycoerythrin (R-PE) is an intensely bright phycobiliprotein isolated from red algae that exhibits extremely bright red-orange fluorescence with high quantum yields. The broad excitation spectrum provides the advantage for multi-color immunofluorescent staining or cell sorting. R-PE consists of a, b and g subunits and is present as (ab) 6g. R-PE and the closely related BPE are the most intensely fluorescent phycobiliproteins having orange fluorescence. R-PE is a large molecule used for fluorescence-based detection, primarily in flow cytometry, microarray assays, ELISAs, and other applications that require high sensitivity but not photostability. In practical applications, the sensitivity of R-PE conjugates is usually 5 to 10 times greater than those of the corresponding fluorescein conjugates.

## EXCITATION AND EMISSION SPECTRA:



## RELATED PRODUCTS:

- Fluorescent Protein Set (**K816-6-100**)
- Blue Fluorescent Protein (BFP) (**4994-100, -1000, -5000**)
- Cyan Fluorescent Protein (**4996-100, -1000, -5000**)
- Recombinant Red Fluorescent Protein (dsRed) (**4997-100, -1000**)
- Enhanced Green Fluorescent Protein (EGFP) (**4999-100, -1000, -5000**)
- Yellow Fluorescent Protein (**4998-100, -1000, -5000**)

**FOR RESEARCH USE ONLY! Not to be used in humans.**