

PerCP [Peridinin-Chlorophyll-Protein]

Cat #: B-CHM304

Size: 10mg / 100mg / 1g

Storage: Store at 4°C protected from light, do not freeze.

Product Introduction

PerCP (Peridinin-chlorophyll-protein complex) is isolated from Dinophyceae sp. It has an extremely high extinction coefficient, a high quantum efficiency and a large Stokes shift. It is well excited with the Argon laser at 488 nm with its maximum emission peak at 677nm. PerCP protein is commonly used for fluorescent immunolabeling, particularly in applications involving fluorescent-activated cell sorting (FACS). Its cyanine tandem conjugates (such as PerCP-Cy5.5 developed by BD) can be excited with a standard 488 nm laser and emits in the far red at a longer wavelength for multicolor flow cytometric analysis of cells.

Product Properties

Form: Ammonium sulfate precipitation

Molecular weight: 35500 Dalton

Spectral properties: Ex / Em = 488 / 675±5 nm

Purity: Amax/A280 >4.2

Quantitative method: In order to obtain the precise weight of PerCP, we recommend using the extinction coefficient of PerCP as a reference (i.e. $[\text{PerCP}] = 0.086 \times A_{482}$, where $[\text{PerCP}]$ is the concentration in mg/ml, and A_{482} is the absorbance value at a wavelength of 482nm, and the A_{482} should be within a range of 0.3 to 0.8.

Shipping and Storage

Storage conditions: Store at 4°C protected from light, do not freeze.

Stability: Stable for at least 12 months under proper storage conditions.

Product Advantages

1. With a wide absorption spectrum within a wide pH range makes it easier to choose an appropriate excitation wavelength, resulting in efficient fluorescence emission with specific fluorescence emission peaks during excitation;
2. Compared with other small molecule dyes (Cy, Alexa, FITC), the absorbance and fluorescence quantum yield are higher; The fluorescence is robust and stable, high sensitivity;
3. The fluorescence background is very low, difficult to quench, the fluorescence could last for a long time;
4. Multiple binding sites can be coupled with various biological and synthetic materials, with less non-specific adsorption; Easy to bind with small molecule dyes, antibodies, biotins, avidins, immune proteins, and other substances to produce fluorescent probes. Through conventional protein cross-linking technology, phycobiliproteins can be easily coupled to antibodies and other proteins without changing their spectral characteristics.
5. With uniform structure with a determined molecular weight, continuous cultivation of the source organism and high purity ensure consistent performance between batches, with very high water solubility. No toxic side effects, no radioactivity, very safe to operate and use.

