

## ReadiUse™ Preactivated PE and PE Tandems

### Ordering Information

Product Number: See Table---2 Components  
(1mg/vial + Buccutite™ MTA 100 ug/vial)

### Storage Conditions

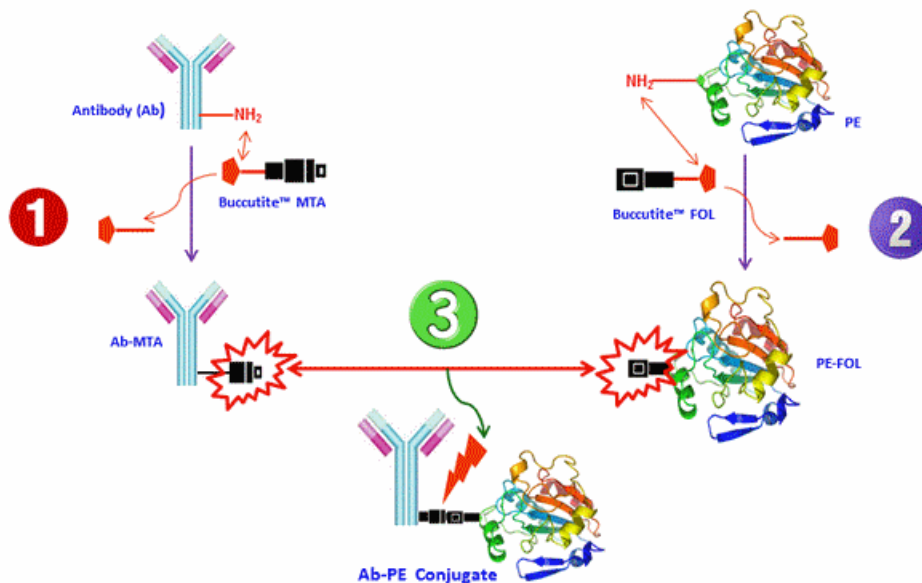
Store desiccated at 4°C and protected from light.  
Expiration date is 12 months from the date of receipt.

### Introduction:

R-Phycoerythrin (PE) is isolated from red algae. Its primary absorption peak is at 565 nm with secondary peaks at 496 and 545 nm. ReadiUse™ Preactivated PE or PE Tandem dyes have been pre-activated with our proprietary linker Buccutite™ FOL, which readily reacts with Buccutite™ MTA-containing molecules under extremely mild neutral conditions. Our Buccutite™ bioconjugation system is much more robust and easier to use and enables faster and quantitative conjugation of biomolecules with higher efficiencies and yields.

### Conjugation Principle

PE was pre-modified with our Buccutite™ FOL as shown in Step 2 (provided). Your antibody (or other proteins) is modified with our Buccutite™ MTA to give MTA-modified protein as shown in Step 1. The MTA-modified protein readily reacts with FOL-modified PE (provided) to give the desired PE-antibody conjugate as shown in Step 3.



### Conjugation Protocols:

1. Pre-activate Antibody with Buccutite™ MTA
  - 1.1 Reconstitute Buccutite™ MTA in DMSO at ~10 mg/mL.  
*Note: Please store unused MTA at -20°C and could be used up to two freeze and thaw cycles.*
  - 1.2 Prepare target antibody (Ab) in pH = 8.5~9.0 buffer at concentration above 1 mg/mL.
  - 1.3 Add the MTA to Ab solution at the ratio of 8~10 µg MTA/100 µg Ab.
  - 1.4 Mix well and react at RT for 60 minutes, rotating during the reaction.
  - 1.5 Purify the reaction mixture with desalting column to remove unreacted MTA and exchange buffer to PBS or buffer of your choice.

- 1.6 Collect the MTA-activated Ab, and estimate the concentration by 70% yield of the original starting amount.
2. Conjugate with Pre-activated PE or PE-Tandems
- 2.1 Reconstitute pre-activated PE or PE Tandems in 100  $\mu$ L ddH<sub>2</sub>O to 10mg/mL.  
*Note: Reconstituted pre-activated PE and PE Tandems are stable at 4 °C for one month, please kept it from light.*
- 2.2 Add pre-activated PE or PE Tandems directly to MTA-activated target Ab solution (from 1.5) at the ratio of 300  $\mu$ g PE or PE Tandem /100 $\mu$ g MTA-activated Ab.
- 2.3 Rotate the mixture for 1~2 hours at room temperature
- 2.4 The Ab/ PE or PE-iFluor Tandems conjugates are now ready to use.  
*Optional: Ab/ PE or PE Tandems conjugate could be further purified through size exclusion chromatography to get best performance.*  
*Note1: The antibody conjugate should be stored at > 0.5 mg/mL in the presence of a carrier protein (e.g., 0.1% bovine serum albumin) and 0.02-0.05% sodium azide.*  
*Note2: The Ab/ PE or PE Tandems conjugate solution is recommended to be stored at 2~8 °C and kept from light.*

### Product Ordering Information

Cat. #	Product Name	Unit Size
2560	ReadiUse™ Preactivated PE	1 mg
2577	ReadiUse™ Preactivated PE-iFluor™ 647 Tandem	1 mg
2578	ReadiUse™ Preactivated PE-iFluor™ 750 Tandem	1 mg
2580	ReadiUse™ Preactivated PE-Cy5 Tandem	1 mg
2581	ReadiUse™ Preactivated PE-Cy5.5 Tandem	1 mg
2582	ReadiUse™ Preactivated PE-Cy7 Tandem	1 mg
2583	ReadiUse™ Preactivated PE-Texas Red Tandem	1 mg
2584	ReadiUse™ Preactivated PE-iFluor™ 594 Tandem	1mg
2585	ReadiUse™ Preactivated PE-iFluor™ 700 Tandem	1mg