

## ReadiUse™ Preactivated APC and APC Tandems

### Ordering Information

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

### Storage Conditions

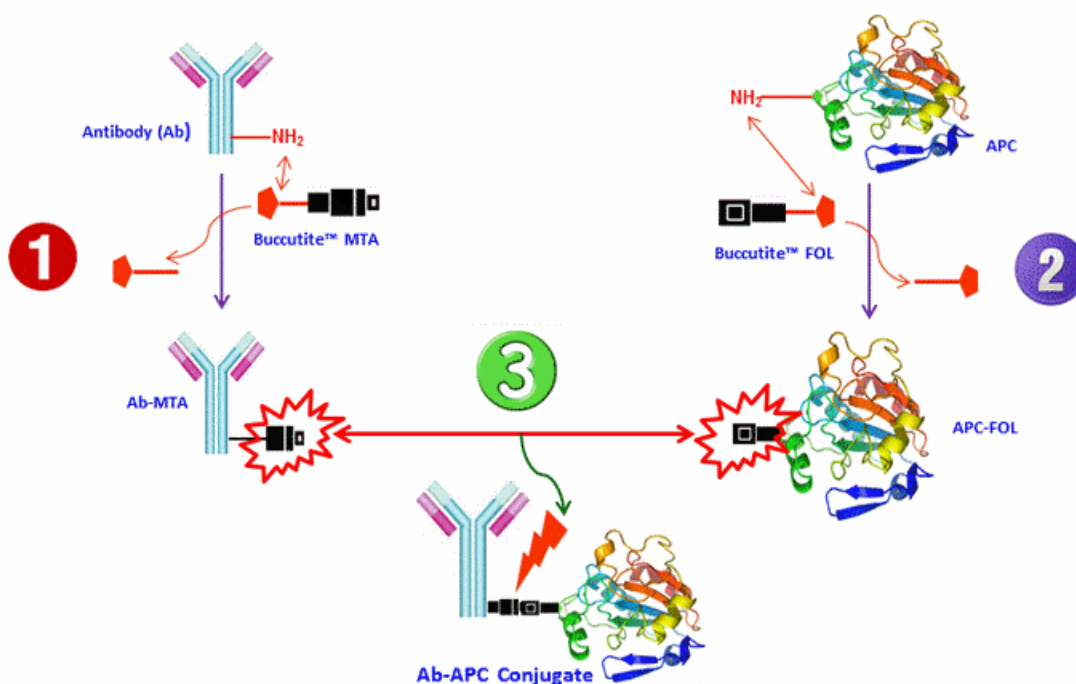
Store desiccated at 4°C and protected from light.  
Expiration date is 12 months from the date of receipt.

### Introduction:

Allophycocyanin (APC) is a phycobiliprotein isolated from *Spirulina* sp., a blue-green alga. Like other phycobiliproteins, APC is fluorescent, with an extremely high absorptivity and high quantum efficiency. ReadiUse™ Preactivated APC or APC-Ifluor Tandems 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

APC was premodified 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 APC (provided) to give the desired APC-antibody conjugate as shown in Step 3.



### Conjugation Protocols:

- Pre-activate antibody with Buccutite™ MTA
  - Reconstitute Buccutite™ MTA in DMSO at ~10 mg/mL.  
*Note: Please store unused Buccutite™ MTA at -20°C and could be used up to two freeze and thaw cycles.*
  - Prepare target antibody (Ab) in pH = 8.5~9.0 buffer at concentration above 1mg/ml.

- 1.3 Add Buccutite™ MTA to Ab solution at the ratio of 8~10 µg Buccutite™ 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 Buccutite™ MTA and exchange buffer to PBS or buffer of your choice.
  - 1.6 Collect the Buccutite™ MTA-activated Ab, and estimate the concentration by 70% yield of the original starting amount.
2. Conjugate with pre-activated APC or APC tandems
- 2.1 Reconstitute pre-activated APC or APC tandems in 100 µL ddH<sub>2</sub>O to 10mg/mL.  
*Note: Reconstituted pre-activated APC or APC tandems could be stored at 4 °C for one month, kept from light.*
  - 2.2 Add APC or APC tandems directly to MTA-activated target Ab solution (from 1.5) at the ratio of 130 µg APC or APC tandems /100µg MTA-activated Ab.
  - 2.3 Rotate the mixture for 1 hour at room temperature
  - 2.4 The Ab/APC or APC tandems conjugates are now ready to use.  
*Note 1(Optional): Ab/APC or APC tandems conjugates could be further purified through size exclusion chromatography to get best performance.*  
*Note 2: 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.*  
*Note 3: The Ab/APC or APC tandems conjugates solution is recommended to be stored at 4 °C and kept from light.*

### Product Ordering Information

Cat. #	Product Name	Unit Size
2561	ReadiUse™ Preactivated APC	1 mg
2570	ReadiUse™ Preactivated APC-iFluor™ 700 Tandem	1 mg
2571	ReadiUse™ Preactivated APC-iFluor™ 750 Tandem	1 mg
2586	ReadiUse™ Preactivated APC-Cy5.5 Tandem	1 mg
2587	ReadiUse™ Preactivated APC-Cy7 Tandem	1 mg