

## Quick Color Biotin/Fluor Antibody Labeling Kit

**Introduction:** Welcome to the quick color antibody labeling kit product line. *These kits are intended to label between 50-100  $\mu$ g of BSA / carrier protein free antibody with a fluorophore or biotin, at a starting concentration of 0.5-1.0 mg/mL.* In just a short number of steps, you will have a modified antibody ready for your assays. Let's get started!

**STOP! Please make sure your buffers are free of the following: BSA or other carrier proteins such as gelatin and no supernatants.**

### **Workflow Overview:**



### **Components:**

Part	Description	Storage
1 x Modifier Tube	10X Buffer for Modification	4C°
1 x Red Column	Optional Column for Final Purification	4C°
1 x Final Buffer Tube	1X Final Buffer	4C°
1 x Biotin or Dye Tube	Ready to react BriteFluor or Biotin reagent	-20C°

### **Protocol:**

1. Add 1/10 volume of Modifier Buffer to your antibody tube (i.e. if starting antibody volume is 100  $\mu$ L, add 10  $\mu$ L modifier buffer). Mix well by vortex or repeat pipetting.
2. Add the antibody flow through directly to the biotin or dye tube, mix well by vortex or repeat pipetting, and react for 10 minutes at room temperature in the dark.
3. After 10-minute incubation add 1X volume of final buffer, mix well and your conjugated antibody is now ready to use! Recovery of your antibody will be ~99% and concentration should be around 0.25-0.5 mg/mL. Store at 4C°. **For longer term storage, it is recommended to use a screw cap tube with an O-ring as evaporation may occur in microcentrifuge tubes.**

4. OPTIONAL PURIFICATION STEP: If removal of biotin/dye is desired, skip the final buffer addition and use the red column for purification.
- Prep the **red column** by breaking off the bottom tab, loosening the cap, and spin down at 1500 rcf in a benchtop centrifuge for 2 minutes. Discard flow-through and place the capless tube back with the **red column**. The column resin should be white.
  - Place the antibody-biotin/dye mixture directly onto the resin of the column and spin down for 2 minutes. Standard antibody recovery is over 90% and commonly over 95% with an Ab concentration around 0.8-1.0 mg/mL assuming a starting concentration of 1.0 mg/mL. Store at 4C°. **For longer term storage, it is recommended to use a screw cap tube with an O-ring as evaporation may occur in microcentrifuge tubes.**

**Supporting Data:**

Product	Catalog #	Peak Excitation (nm)	Peak Emission (nm)	Molar Extinction Coefficient M <sup>-1</sup> cm <sup>-1</sup> at 280nm
FITC Kit	QCL-FITC	495	519	75,000
BF490 Kit	QCL-BF490	491	515	73,000
BF550 Kit	QCL-BF550	550	575	150,000
BF594 Kit	QCL-BF594	594	615	92,000
BF650 Kit	QCL-BF650	655	676	250,000
Biotin Kit	QCL-BTN	-	-	-
HRP Kit	QCL-HRP	-	-	20,000
APC Kit	QCL-PE	498	573	1.96 x 10 <sup>6</sup>
PE Kit	QCL-APC	652	657	7.0 X 10 <sup>5</sup>

***Disclaimer: RESEARCH USE ONLY. NOT FOR HUMAN OR ANIMAL THERAPEUTIC OR DIAGNOSTIC USE.***

*This kit is intended for research purposes only. It should be handled by trained laboratory personnel in accordance with established safety procedures. Refer to the Safety Data Sheet (SDS) for detailed information on handling, storage, and disposal. This product is not intended for use in diagnostic procedures on humans or animals, nor for therapeutic applications.*

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