

Immunologicals - Secondary reagents

PhycoErythrin and Allophycocyanin Secondary Antibodies

PhycoErythrin and Allophycocyanin labeled secondary reagents

Phycoerythrin (PE)

Phycoerythrin (PE), a phycobiliprotein isolated from red algae, is an attractive red fluorescent dye because it has a broad and high absorption of light over a wide range of the visible spectrum, and emits intensely thanks to highest quantum yield. It has a favorable pattern in immunodetection techniques (high solubility so low non specific binding, weak quenching upon conjugation). Its high molecular weight limits its use in applications where high penetration in cells and tissues is required, although permeabilization techniques exists. Alternatively, FluoProbes®494 can be used.

2 PE types are provided, R-Phycoerythrin (PE), isolated from seaweed, and B-Phycoerythrin (PE), isolated from Porphyridium cruentum cyanobacteria. Both can be excited by Argon laser 488 nm line, or mercury lamps (545 nm), and read at 576 nm (optimal).

R-PE has been popularized widely. It is preferred in FCM for double labeling with FITC using a single argon ion laser, because it absorbs light better at 488 nm, but B-PE is useful for other applications because it has better absorption around 545 nm (available only as streptavidin Conjugate FP-79237A, see page A350) and more stable fluorescence signal.

Allophycocyanin

Allophycocyanin (APC) is emerging as one of the brightest fluorescent probes for FACS analysis. APC is a large protein (approximate molecular weight 105 k). It emits at about 680 nm, and can be excited by either a dye laser (595-605 nm), or the cheaper HeNe laser (633 nm).

Antibody Description		Unconjugated	Phycoerythrin R-PE A=488 / E=580	Allophycocyanin APC A=633 / E=670
Donkey F(ab') ₂	Anti-Chicken IgY ₁ (IgG)(H+L) (min X Bov. Gt. GP. Sy Hms. Hrs. Hu. Ms. Rb. Rat. Shp Sr Prot)	859720 0.5 mg	U77780 1 ml	FT1390 0.5 ml
Donkey F(ab') ₂	Anti-Goat IgG (H+L) (min X Ck. GP. Sy Hms. Hrs. Hu. Ms. Rb. Rat Sr Prot)	M44390 0.5 mg	393500 1 ml	BH6600 0.5 ml
Donkey F(ab') ₂	Anti-Guinea Pig IgG (H+L) (min X Bov. Ck. Gt. Sy Hms. Hrs. Hu. Ms. Rb. Rat. Shp Sr Prot)	M44460 0.5 mg	FT1400 1.0 ml	FT1410 0.5 ml
Goat IgG	Anti-Hamster(Armenian) IgG (H+L) (min X Bov. Hu. Ms. Rb. Rat Sr Prot)	M33170	BB4040	FT1380
	Anti-Human	1 mg	1 ml	0.5 ml
Donkey F(ab') ₂	Anti-Human IgG (H+L) (min X Bov. Ck. Gt. GP. Sy Hms. Hrs. Ms. Rb. Rat. Shp Sr Prot)	365860 0.5 mg	986260 1 ml	BH6610 0.5 ml
Donkey F(ab') ₂	Anti-Human IgM. Fc fragment specific (min X Bov. Hrs Sr Prot)	365910 1 mg	M44910 1 ml	BH6620 0.5 ml
Goat F(ab') ₂	Anti-Human IgG (H+L) (min X Bov. Hrs. Ms Sr Prot)	M27900 1.0 mg	467630 1 ml	FT1190 0.5 ml
Goat F(ab') ₂	Anti-Human IgG. Fc _γ fragment specific (min X Bov. Hrs. Ms Sr Prot)	458130 1.0 mg	673110 1 ml	FT1210 0.5 ml
Goat IgG	Anti-Human IgG. Fc _γ fragment specific (min X Bov. Hrs. Ms Sr Prot)	498271 1.5 mg	FT1140 1.0 ml	FT1180 0.5 ml
Goat F(ab') ₂	Anti-Human IgG. Fc _γ fragment specific (min X Bov. Ms. Rb Sr Prot)	BH6630 1 mg	FT1160 1.0 ml	FT1230 0.5 ml
Goat F(ab') ₂	Anti-Human IgG. F(ab') ₂ fragment specific (min X Bov. Hrs. Ms Sr Prot)	180270 1 mg	965220 1 ml	FT1200 0.5 ml
Goat F(ab') ₂	Anti-Human IgG + IgM (H+L) (min X Bov Sr Prot)	682740 1 mg	FT1150 1.0 ml	FT1220 0.5 ml
Goat IgG	Anti-Human IgA. alpha chain specific	755370 2 mg	FT1130 1.0 ml	FT1170 0.5 ml

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Antibody Description / Label*		Unconjugated	Phycoerythrin R-PE A=488/ E=580	Allophycocyanin APC A=633 / E=670
Anti-Mouse				
Donkey F(ab') ₂	Anti-Mouse IgG (H+L) (min X Bov. Ck. Gt. GP. Sy Hms. Hrs. Hu. Rb. Shp Sr Prot)	989050 0.5 mg	197600 1 ml	FT1460 0.5 ml
Donkey F(ab') ₂	Anti-Mouse IgG (H+L) (min X Bov. Ck. Gt. GP. Sy Hms. Hrs. Hu. Rb. Rat. Shp Sr Prot)	548180 0.5 mg	962320 1 ml	FT1470 0.5 ml
Goat F(ab') ₂	Anti-Mouse IgG (H+L) (min X Hu. Bov. Hrs. Rb. Sw Sr Prot)	FT0230 1.0 mg	559770 1 ml	FT1370 0.5 ml
Goat F(ab') ₂	Anti-Mouse IgG Fcγ fragment specific (min X Hu. Bov. Hrs Sr Prot)	266210 1.0 mg	216550 1 ml	FT1340 0.5 ml
Goat IgG	Anti-Mouse IgG (subclasses 1+2a+2b+3). Fc fragment specific (min X Hu. Bov. Rb Sr Prot)	M32080 1 mg	FT1250 1.0 ml	FT1300 0.5 ml
Goat IgG	Anti-Mouse IgG. Fcγ subclass 1 specific (min X Hu. Bov. Rb Sr Prot)	BG5060 1 mg	FT1260 0.5 ml	FT1310 0.3 ml
Goat IgG	Anti-Mouse IgG. Fcγ subclass 2a specific (min X Hu. Bov. Rb Sr Prot)	BG5200 1 mg	FT1270 0.5 ml	FT1320 0.3 ml
Goat IgG	Anti-Mouse IgG. Fcγ subclass 2b specific (min X Hu. Bov. Rb Sr Prot)	BG5210 1 mg	BH66660 0.5 ml	BH6680 0.3 ml
Goat F(ab') ₂	Anti-Mouse IgG. F(ab') ₂ fragment specific (min X Hu. Bov. Hrs Sr Prot)	902470 1.0 mg	959600 1 ml	FT1350 0.5 ml
Goat F(ab') ₂	Anti-Mouse IgG + IgM (H+L) (min X Hu. Bov. Hrs Sr Prot)	866090 1.0 mg	FT1280 1.0 ml	FT1330 0.5 ml
Goat F(ab') ₂	Anti-Mouse IgM. γ chain specific (min X Hu. Bov. Hrs Sr Prot)	419501 1 mg	877130 1 ml	FT1360 0.5 ml
Anti-Rabbit				
Donkey F(ab') ₂	Anti-Rabbit IgG (H+L) (min X Bov. Ck. Gt. GP. Sy Hms. Hrs. Hu. Ms. Rat. Shp Sr Prot)	662460 0.5 mg	962310 1 ml	FT1420 0.5 ml
Goat F(ab') ₂	Anti-Rabbit IgG (H+L) (min X Hu. Ms. Rat Sr Prot)	BH6870 1 mg	U77790 1 ml	FT1240 0.5 ml
Anti-Rat				
Donkey F(ab') ₂	Anti-Rat IgG (H+L) (min X Bov. Ck. Gt. GP. Sy Hms. Hrs. Hu. Rb. Shp Sr Prot)	M45320 0.5 mg	M45390 1 ml	FT1430 0.5 ml
Donkey F(ab') ₂	Anti-Rat IgG (H+L) (min X Bov. Ck. Gt. GP. Sy Hms. Hrs. Hu. Ms. Rb. Shp Sr Prot)	167940 0.5 mg	317260 1 ml	FT1440 0.5 ml
Goat F(ab') ₂	Anti-Rat IgG (H+L) (min X Hu. Bov. Hrs. Rb Sr Prot)	BH6690 1 mg	964930 1 ml	BH6720 0.5 ml
Goat F(ab') ₂	Anti-Rat IgG. Fc fragment specific (min X Hu. Bov. Hrs Sr Prot)	M30260 1 mg	M30850 1 ml	BH6740 0.5 ml
Goat F(ab') ₂	Anti-Rat IgG. F(ab') ₂ fragment specific (min X Hu. Bov. Hrs Sr Prot)	M30270 1 mg	951810 1 ml	BH6750 0.5 ml
Goat F(ab') ₂	Anti-Rat IgM. γ chain specific (min X Hu. Bov. Hrs Sr Prot)	M45500 0.5 mg	675900 1 ml	FT1450 0.5 ml
Anti-Sheep				
Donkey F(ab') ₂	Anti-Sheep IgG (H+L) (min X Ck. GP. Sy Hms. Hrs. Hu. Ms. Rb. Rat Sr Prot)	M25680 10 mg	FT0780 1.0 ml	FT0790 0.5 ml
Non Immune antibodies (controls)				
Donkey F(ab') ₂	F(ab') ₂ Fragments of C non immunepure Donkey IgG	M09400 10 mg	U76180 1 ml	FT0770 0.5 ml
Goat F(ab') ₂	F(ab') ₂ Fragments of non immunepure Goat IgG	M09400 10 mg	U76180 1 ml	FT0770 0.5 ml
Goat IgG	Whole molecule of non immunepure Goat IgG	767090 10 mg	BH6760 1 ml	FT0760 0.5 ml