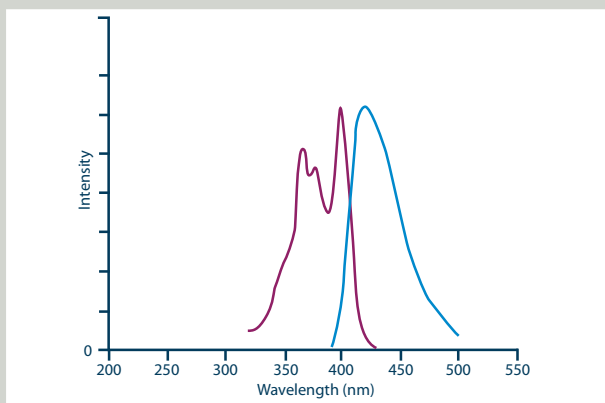


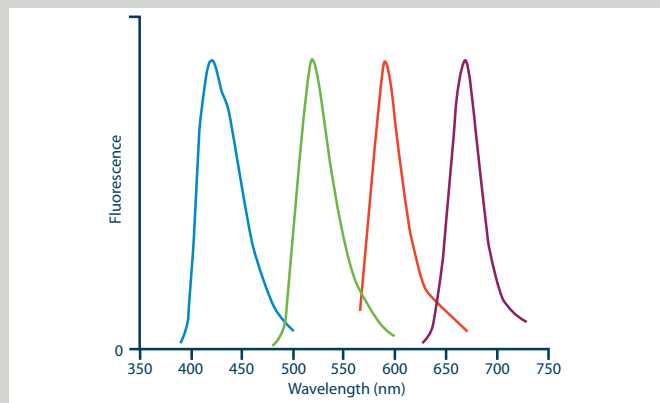
Specializing in **Secondary Antibodies** and **Conjugates**

## 4-Color Imaging with **DyLight 405 Conjugates**

Our **DyLight 405**-conjugated secondary antibodies are excited maximally at 400 nm and fluoresce with a peak at 421 nm (Figure 1). They are very bright and photostable when used with confocal microscopes equipped with a 405 nm laser and appropriate emission filter.



**Figure 1.** Excitation (violet) and emission (blue) spectra for DyLight 405 conjugated to an affinity-purified secondary antibody from Jackson ImmunoResearch. Quantitative comparisons should not be made since peak heights have been normalized. Spectra were obtained with an M-Series spectrofluorometer system from Photon Technology International, Inc



**Figure 2.** Emission spectra of DyLight 405 (blue), Alexa Fluor® 488 (green), Rhodamine Red-X (red), and Alexa Fluor® 647 (brown). This figure illustrates the relative shape and position of each fluorophore emission peak following conjugation to antibodies. It shows that effective 4-color imaging can be performed with maximum color separation using these dyes. Quantitative comparisons should not be made since peak heights have been normalized. All spectra were obtained with an M-Series spectrofluorometer system from Photon Technology International, Inc.

Under these conditions, it is possible to perform highly effective 4-color imaging with good color separation, good photostability, and high sensitivity in both aqueous and permanent mounting media. The combination of DyLight 405, Alexa Fluor® 488, Rhodamine Red-X, and Alexa Fluor® 647 provides for maximum color separation (Figure 2).

DyLight 405 is not recommended for use with epifluorescence microscopes without a 405 nm laser, nor is it recommended for flow cytometry with a 405 nm laser, because emission filters generally used in flow cytometers are not optimal for DyLight 405.

The following table lists highly adsorbed affinity-purified secondary antibodies, streptavidin, and immunoglobulin controls conjugated with DyLight 405 as offered by Jackson ImmunoResearch for use only in 4-color labeling protocols using a 405 nm laser-equipped confocal microscope.

For a complete listing of other DyLight 405 conjugates for 1-, 2-, and 3-color labeling, see other tables at [www.jireurope.com](http://www.jireurope.com).

Product Description	DyLight 405 A=400 nm, E=421 nm	Product Description	DyLight 405 A=400 nm, E=421 nm
Streptavidin	1.0 mg 016-470-084	Goat Anti-Mouse IgG, Fcγ Subclass 3 Specific (min X Hu, Bov, Rb Sr Prot)	ML 0.5 mg 115-475-209
Donkey Anti-Chicken IgY (IgG)(H+L) (min X Bov, Gt, GP, Sy Hms, Hrs, Hu, Ms, Rb, Rat, Shp Sr Prot)	ML 0.5 mg 703-475-155	Goat Anti-Mouse IgG (H+L) (min X Rat, Hu, Bov, Hrs, Rb Sr Prot)	ML 0.5 mg 115-475-166
Donkey Anti-Goat IgG (H+L) (min X Ck, GP, Sy Hms, Hrs, Hu, Ms, Rb, Rat Sr Prot)	ML 0.5 mg 705-475-147	Donkey Anti-Rat IgG (H+L) (min X Bov, Ck, Gt, GP, Sy Hms, Hrs, Hu, Rb, Shp Sr Prot)	ML 0.5 mg 712-475-150
Donkey Anti-Guinea Pig IgG (H+L) (min X Bov, Ck, Gt, GP, Sy Hms, Hrs, Hu, Ms, Rb, Rat, Shp Sr Prot)	ML 0.5 mg 706-475-148	Donkey Anti-Rat IgG (H+L) (min X Bov, Ck, Gt, GP, Sy Hms, Hrs, Hu, Ms, Rb, Shp Sr Prot)	ML 0.5 mg 712-475-153
Donkey Anti-Human IgG (H+L) (min X Bov, Ck, Gt, GP, Sy Hms, Hrs, Ms, Rb, Rat, Shp Sr Prot)	ML 0.5 mg 709-475-149	Goat Anti-Rat IgG (H+L) (min X Ms, Hu, Bov, Hrs, Rb Sr Prot)	ML 0.5 mg 112-475-167
Donkey Anti-Mouse IgG (H+L) (min X Bov, Ck, Gt, GP, Sy Hms, Hrs, Hu, Rb, Shp Sr Prot)	ML 0.5 mg 715-475-150	Donkey Anti-Rabbit IgG (H+L) (min X Bov, Ck, Gt, GP, Sy Hms, Hrs, Hu, Ms, Rat, Shp Sr Prot)	ML 0.5 mg 711-475-152
Donkey Anti-Mouse IgG (H+L) (min X Bov, Ck, Gt, GP, Sy Hms, Hrs, Hu, Rb, Rat Shp Sr Prot)	ML 0.5 mg 715-475-151	Goat Anti-Rabbit IgG (H+L) (min X Hu, Ms, Rat Sr Prot)	ML 1.0 mg 111-475-144
Goat Anti-Mouse IgG, Fcγ Subclass 1 Specific (min X Hu, Bov, Rb Sr Prot)	ML 0.5 mg 115-475-205	Donkey Anti-Sheep IgG (H+L) (min X Ck, GP, Sy Hms, Hrs, Hu, Ms, Rb, Rat Sr Prot)	ML 0.5 mg 713-475-147
Goat Anti-Mouse IgG, Fcγ Subclass 2a Specific (min X Hu, Bov, Rb Sr Prot)	ML 0.5 mg 115-475-206	ChromPure Donkey IgG, whole molecule	1.0 mg 017-470-003
Goat Anti-Mouse IgG, Fcγ Subclass 2b Specific (min X Hu, Bov, Rb Sr Prot)	ML 0.5 mg 115-475-207	ChromPure Goat IgG, whole molecule	1.0 mg 005-470-003
Goat Anti-Mouse IgG, Fcγ Subclass 2c Specific (min X Hu, Bov, Rb Sr Prot)	ML 0.5 mg 115-475-208		

\* ML= Multiple Labeling (see Multiple Labeling at [www.jireurope.com](http://www.jireurope.com) for an explanation).

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Jackson ImmunoResearch is licensed by Thermo Fisher Scientific to manufacture and sell conjugates of DyLight Fluorescent Dyes.



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