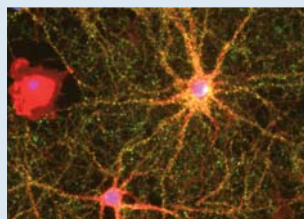
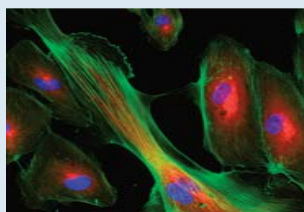


## Immunofluorescence using DyLight Conjugates

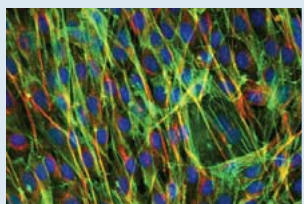
See bright fluorescence and low background with KPL DyLight conjugates in immunohistology applications. The winning combination of DyLight dyes and KPL purified antibodies enables multicolor labeling of two or more targets with similar intensity and photostability to Alexa dyes without the limitations of fluorescein and CyDyes.



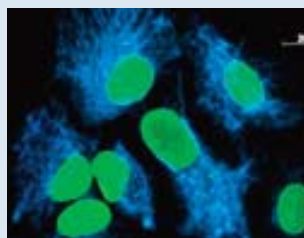
Mouse primary cortical neurons MCx WCS stained with DyLight 549 (red). Synaptophysin stained with DyLight 488 (green).



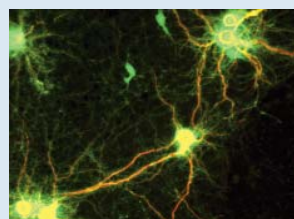
HMVEC-L primary endothelial cells F-actin detected with DY554-Phalloidin (rendered green). Microtubules stained with DyLight 649 (red). Nuclei detected with DAPI (blue).



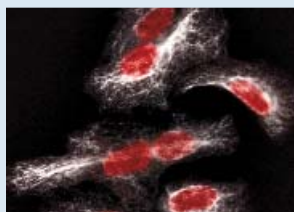
NIH 3T3 cells F-actin detected with DY554-Phalloidin (rendered green). Microtubules stained with DyLight 649 (red). Nuclei detected with DAPI (blue).



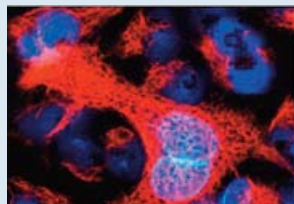
Cells were probed with anti-lamin-A and rabbit anti-cytokeratin18. Detected with a mixture of DyLight 488-labeled goat anti-mouse and DyLight 405-labeled goat anti-rabbit antibodies.



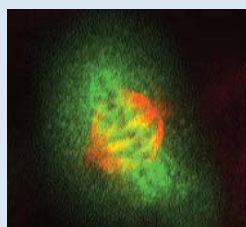
Rat hippocampal neurons WCS stained with DyLight 488 (green). MAP2 stained with DyLight 549 (red).



A549 cells Cytokeratin stained with DyLight 680 (pseudocolored white). Lamin A stained with DyLight 549 (pseudocolored red).



Cells were probed with anti-lamin-A and rabbit anti-cytokeratin18. Detected with a mixture of DyLight 405-labeled goat anti-mouse and DyLight 633-labeled goat anti-rabbit antibodies.



Codetection of mouse anti-α-tubulin and rabbit anti-lamin B1 using DyLight 594-labeled goat anti-mouse and DyLight 488-labeled goat anti-rabbit antibodies.

To order or for more information on KPL's line of unlabeled and conjugated affinity purified antibodies, contact us at 800.638.3167/301.948.7755, fax 301.948.0169 or visit [www.kpl.com](http://www.kpl.com).

ML356-04  
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Alexa Fluor is a registered trademark of Invitrogen.  
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## DyLight™ Fluorescent Conjugates

### KPL Antibodies- What Sets Them Apart

In 1979, KPL pioneered the production of large-scale affinity purification and was the first company to commercialize affinity purified secondary antibodies. Rigorous standards throughout the antibody production process make our antibodies stand out in the marketplace. Many manufacturers cut corners by beginning with inferior serum and extracting the useful antibody towards the end of their process. KPL spends considerable effort developing and purifying its own immunogen formulation to generate the antiserum, because pure immunogen results in a more potent and specific antibody prior to any purification steps.

Further, ISO 9001:2008-certified quality procedures are carried out at more than six different stages of the antibody production cycle, and material that does not meet our high standards for potency and cross-reactivity is rejected. Our late stage purification process has been continually refined since 1979 and relies on a one of a kind custom column resin which is uniquely suited to our antibody manufacturing process.

Finally, our process of pooling antiserum from multiple animals tempers natural serum variability, minimizing variances from animal-to-animal. The result is more standardized large-scale antibody lots with increased consistency. KPL's experience, innovative processes, and attention to detail result in high-performance antibodies that are unique.

**medac**  
**diagnostika**

Theaterstraße 6    Telefon 04103/ 8006-342  
D-22880 Wedel    Telefax 04103/ 8006-359

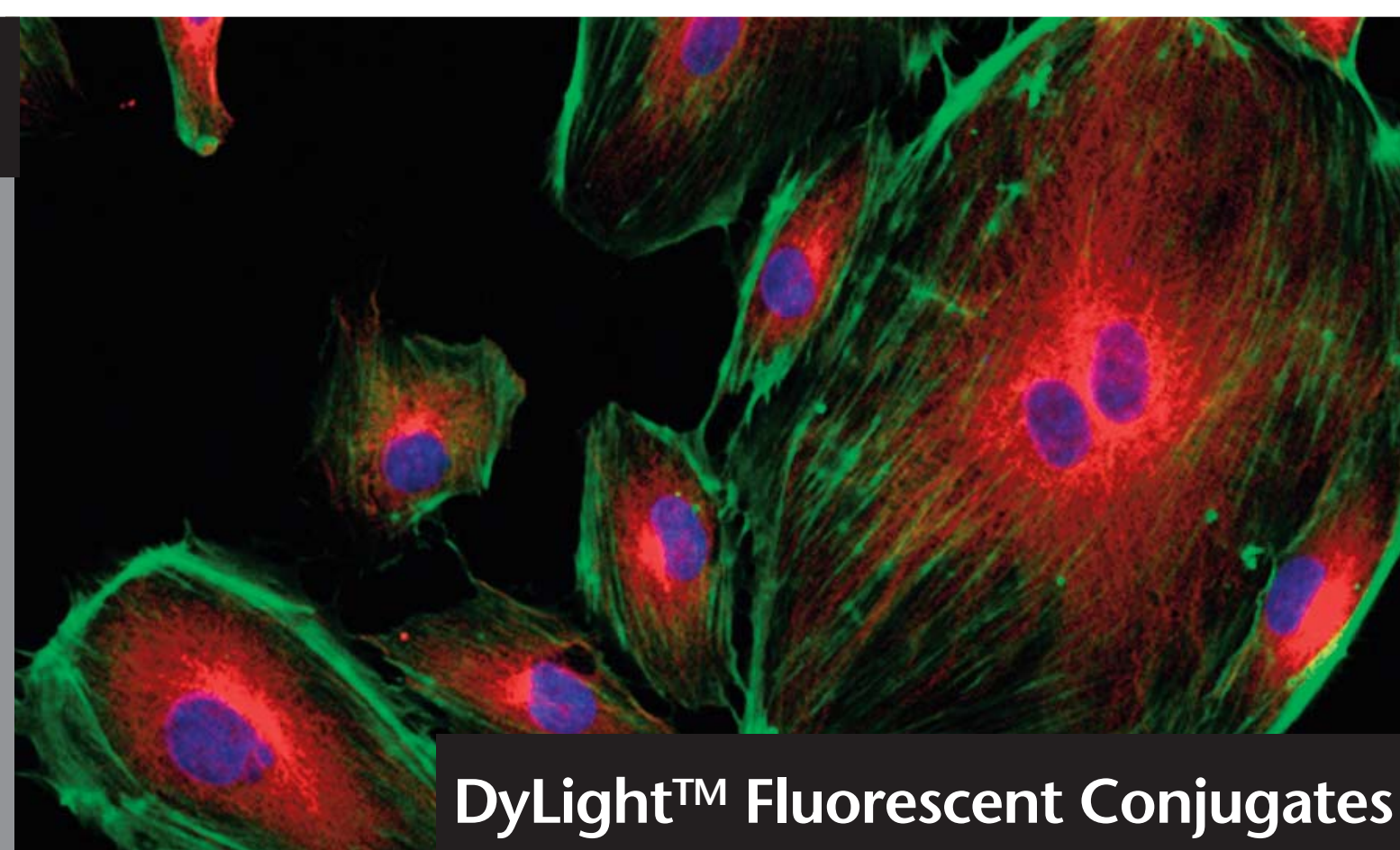
[www.medac-diagnostika.de](http://www.medac-diagnostika.de)

ISO 9001:2008 Registered



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Immunoassays

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## DyLight™ Fluorescent Conjugates

### KPL's DyLight™ Conjugates - A Brilliant Choice!

KPL's DyLight™ conjugates offer a brilliant choice in a variety of multicolor detection applications, including fluorescence microscopy, flow cytometry, Western blotting, ELISA and array platforms. Our affinity purified antibodies combined with a series of outstanding DyLight dyes provide superior performance over conventional CyDye™ fluors, fluorescein and rhodamine, with performance comparable to that of Alexa Fluor® dyes (Figure 1). Enjoy these advantages when you switch to KPL's DyLight Conjugates:

- High sensitivity, bright signal enable conjugate conservation
- More photostable than Cy, FITC; comparable to Alexa
- High signal-to-noise ratios; low background
- Wide selection of specific antibodies
- Consistent, lot-to-lot performance
- Narrow emission spectra enable specific, multicolor analysis
- Compatible with a variety of buffers.

KPL offers eight DyLight dyes, including 405, 488, 549, 594, 633, 649, 680 and 800 with well-differentiated excitation and emission spectra. Our extensive line of over 170 DyLight conjugates is available across a range of animal species immunoglobulin, including human, mouse, rabbit, rat, other species and streptavidin. See back cover to find out what sets KPL's antibodies apart.

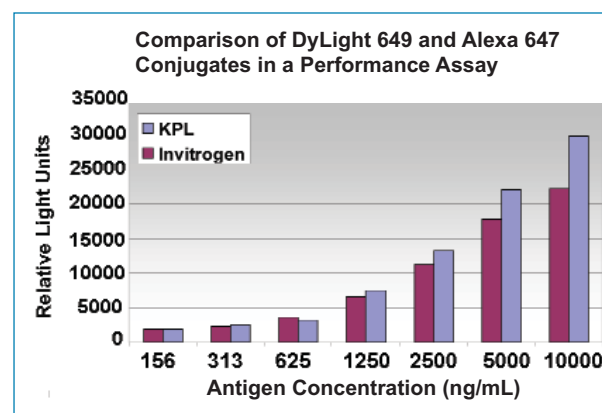


Figure 1. KPL DyLight 649 conjugates demonstrate comparable fluorescence intensity and photostability to Alexa 647 conjugates in a FLISA.

Image above: HMVEC-L primary endothelial cells. F-actin detected with DY554-Phalloidin (rendered green). Microtubules detected with anti-tubulin antibody and DyLight 649 conjugated goat anti-mouse IgG (red). Nuclei detected with DAPI (blue)



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# DyLight™ Fluorescent Conjugates

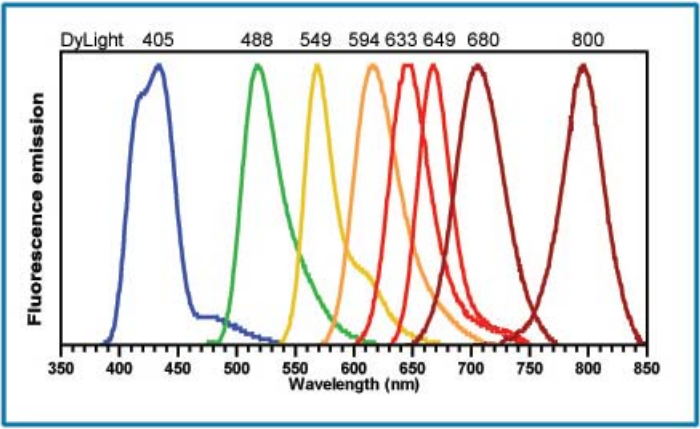
## DyLight Conjugated Affinity Purified Antibodies and Streptavidin

KPL DyLight conjugates provide a choice of outstanding fluorescent conjugates with absorption spectra ranging from 405 nm to 800 nm. Their emission profiles correspond to those of other commonly used fluorophores such as Alexa, FITC and the Cy dyes. Narrow, defined emission spectra enable the use of multiple fluorescence labeling and simultaneous identification of several target molecules in the same sample. Light output is comparable to IRDye and Alexa and more intense than Cy Dyes, FITC or TRITC. DyLight dyes demonstrate resistance to photobleaching, resulting in excellent photostability as well as high solubility in aqueous solutions across a range of pH values.

### Ordering Information

Description	DyLight 405	DyLight 488	DyLight 549	DyLight 594	DyLight 633	DyLight 649	DyLight 680	DyLight 800
Anti-Mouse IgG (γ), HSA		072-03-18-02	072-04-18-02			072-05-18-02		
Anti-Mouse IgG (H+L), HSA	072-08-18-06	072-03-18-06	072-04-18-06	072-09-18-06	072-10-18-06	072-05-18-06	072-06-18-06	072-07-18-06
Anti-Mouse IgG (H+L), HSA, 0.1 mg	042-08-18-06	042-03-18-06	042-04-18-06	042-09-18-06	042-10-18-06	042-05-18-06	042-06-18-06	042-07-18-06
Anti-Mouse IgG (H+L), RbSA, HSA		072-03-18-18	072-04-18-18			072-05-18-18	072-06-18-18	072-07-18-18
Anti-Mouse IgM (μ), HSA		072-03-18-03	072-04-18-03			072-05-18-03		
Anti-Mouse IgG+IgM (H+L), HSA		072-03-18-09	072-04-18-09			072-05-18-09		
F(ab') <sub>2</sub> Anti-Mouse IgG (γ), HSA		202-03-18-02	202-04-18-02			202-05-18-02		
F(ab') <sub>2</sub> Anti-Mouse IgG (H+L), HSA	202-08-18-06	202-03-18-06	202-04-18-06	202-09-18-06	202-10-18-06	202-05-18-06	202-06-18-06	202-07-18-06
Anti-Human IgG (H+L)	072-08-10-06	072-03-10-06	072-04-10-06	072-09-10-06	072-10-10-06	072-05-10-06	072-06-10-06	072-07-10-06
Anti-Human IgG (H+L), 0.1 mg	042-08-10-06	042-03-10-06	042-04-10-06	042-09-10-06	042-10-10-06	042-05-10-06	042-06-10-06	042-07-10-06
Anti-Human IgG (γ)		072-03-10-02	072-04-10-02			072-05-10-02		
Anti-Human IgM (μ)		072-03-10-03	072-04-10-03			072-05-10-03		
F(ab') <sub>2</sub> Anti-Human IgG (γ)		202-03-10-02	202-04-10-02			202-05-10-02		
F(ab') <sub>2</sub> Anti-Human IgM (μ)		202-03-10-03	202-04-10-03			202-05-10-03		
F(ab') <sub>2</sub> Anti-Human IgG (H+L)	202-08-10-06	202-03-10-06	202-04-10-06	202-09-10-06	202-10-10-06	202-05-10-06	202-06-10-06	202-07-10-06
Anti-Rabbit IgG (H+L)	072-08-15-06	072-03-15-06	072-04-15-06	072-09-15-06	072-10-15-06	072-05-15-06	072-06-15-06	072-07-15-06
Anti-Rabbit IgG (H+L), 0.1 mg	042-08-15-06	042-03-15-06	042-04-15-06	042-09-15-06	042-10-15-06	042-05-15-06	042-06-15-06	042-07-15-06
Anti-Rabbit IgG (H+L), HSA		072-03-15-16	072-04-15-16			072-05-15-16	072-06-15-16	072-07-15-16
F(ab') <sub>2</sub> Anti-Rabbit IgG (H+L), HSA	202-08-15-16	202-03-15-16	202-04-15-16	202-09-15-16	202-10-15-16	202-05-15-16	202-06-15-16	202-07-15-16
Anti-Rat IgG (H+L)	072-08-16-06	072-03-16-06	072-04-16-06	072-09-16-06	072-10-16-06	072-05-16-06	072-06-16-06	072-07-16-06
Anti-Rat IgG (H+L), 0.1 mg		042-03-16-06						
Anti-Guinea Pig IgG (H+L)		072-03-17-06	072-04-17-06			072-05-17-06	072-06-17-06	072-07-17-06
Anti-Chicken IgG (H+L)	072-08-24-06	072-03-24-06	072-04-24-06	072-09-24-06	072-10-24-06	072-05-24-06	072-06-24-06	072-07-24-06
Anti-Dog IgG (H+L)		072-03-19-06	072-04-19-06			072-05-19-06	072-06-19-06	072-07-19-06
Anti-Goat IgG (H+L)	072-08-13-06	072-03-13-06	072-04-13-06	072-09-13-06	072-10-13-06	072-05-13-06	072-06-13-06	072-07-13-06
Anti-Horse IgG (H+L)		072-03-21-06	072-04-21-06			072-05-21-06	072-06-21-06	072-07-21-06
Rabbit Anti-Sheep IgG (H+L)		072-03-23-06	072-04-23-06			072-05-23-06	072-06-23-06	072-07-23-06
Anti-Swine IgG (H+L)		072-03-14-06	072-04-14-06			072-05-14-06	072-06-14-06	072-07-14-06
Streptavidin	072-08-30-00	072-03-30-00	072-04-30-00	072-09-30-00	072-10-30-00	072-05-30-00	072-06-30-00	072-07-30-00
Streptavidin, 0.1 mg	042-08-30-00	042-03-30-00	042-04-30-00	042-09-30-00	042-10-30-00	042-05-30-00	042-06-30-00	042-07-30-00

### DyLight Dyes Emission Spectra



Emission	DyLight Dye	Ex/Em(nm)	Replaces
Blue	DyLight 405	400/420	Alexa 405 and Cascade Blue
Green	DyLight 488	493/518	Alexa 488 and FITC
Yellow	DyLight 549	550/568	Alexa 546, Alexa 555, Cy3, TRITC
Orange	DyLight 594	593/618	Alexa 594, Texas Red
Red	DyLight 633	638/658	Alexa 633
Red	DyLight 649	646/674	Alexa 647, Cy5
Near IR	DyLight 680	682/715	Alexa 680, Cy5.5
Infrared	DyLight 800	770/794	IRDye 800

nm = nanometers  
IR = infrared

### Near Infrared Fluorophores DyLight 680 and 800 Conjugates Offer Sensitive Multicolor Imaging in Western Blotting

DyLight 680 and 800 dyes emit in the near infrared and infrared ranges of the light spectrum respectively and are ideal for multicolor protein detection in Western blotting. Unlike fluorescent conjugates that emit in the visible range, DyLight 680 and 800 conjugates provide a unique set of advantages:

- Secondary antibodies with defined specificity and sensitivity
- Brighter signal than visible fluorescence
- Virtually no background autofluorescence from membranes or most biological specimens

### Effective Alternative to Chemiluminescence

- Broader dynamic range than chemiluminescence
- Quantitation accuracy superior to traditional methods
- Easy to assay multiple proteins simultaneously on one Western blot
- Cost-effective - eliminates need for chemiluminescence substrates, film and darkroom
- Clean results - no bleeding from consecutive lanes

### Near Infrared Fluorescent Imaging with Secondary Antibodies labeled with DyLight 680 and 800

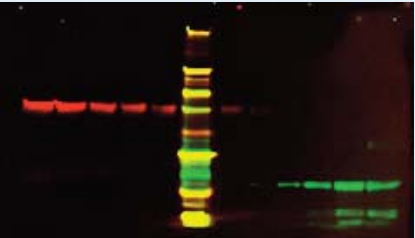


Figure 2. DyLight 680 anti-mouse IgG and DyLight 800 anti-rabbit IgG secondary antibody conjugates provide low background and high signal in two-color Western blot detection of tubulin and TNFα. Membrane was imaged with the LI-COR Odyssey Infrared Imaging System.

HSA = human serum adsorbed  
RbSA = rabbit serum adsorbed  
DyLight antibody conjugates are made in goat except anti-goat and anti-sheep antibodies are made in rabbit. Supplied in 1.0 mg lyophilized form except select 0.1 mg sizes.