



# STANDING Tall

**CUSTOM PRODUCTS AND SERVICES**



*Power Your  
Immunoassays*



**COME GROW WITH US!**

Contact KPL and let us know how we can support your OEM needs.

- Quality antibodies, substrates, and immunoassay support reagents
- Large scale production
- Custom packaging

# STRONG Roots

A pioneer in the production of affinity purified antibodies and stable, liquid substrates, KPL has built a reputation for innovation and quality. Since 1979, the world's leading immunodiagnostic manufacturers have turned to KPL as their preferred vendor and trusted OEM supplier.

We supply antibodies and a full line of immunoassay reagents to *in vitro* diagnostic, biopharmaceutical, biotech, and food pathogen test manufacturers around the world. Our reagents are integral components of commercially available human and animal *in vitro* diagnostic kits, in-process testing protocols, and high-throughput screening applications.

## SUSTAINED GROWTH

KPL offers over 500 reagents and assay kits that provide exceptional performance and consistent quality in ELISA, blotting, and immunohistochemistry applications. Whether you need material provided in bulk or in packaging that is ready to insert into your kit, KPL can deliver the following custom products and services to meet your specific needs:

- Affinity Purified Antibodies
- Antibody Conjugates
- Substrates for ELISA, Blotting, and Immunohistochemistry Applications
- Immunology Support Reagents (blockers, wash solutions, stabilizers, and more)
- Large Scale Production and Packaging Options
- Protein Purification and Conjugation Services



[www.kpl.com/OEM](http://www.kpl.com/OEM)  
800.638.3167 option 4

## UNWAVERING SUPPORT

Throughout our longstanding tradition of delivering quality products, we have cultivated lasting business relationships. And as your partner, we are steadfast in our commitment to your success. We celebrate your achievements as if they are our own.

Leading assay manufacturers depend on our expertise and flexible manufacturing capabilities to grow their business. They're also confident we'll deliver. That's why, when it comes to the industry's OEM immunoassay reagent suppliers, KPL stands a little taller.

## Means Working Towards Your Success

Whether you are developing a new product or sourcing new component vendors for commercialized products, KPL can deliver quality protein detection reagents, antibodies, and OEM services tailored to your needs. We seek to develop strong business relationships with customers like you and prove ourselves to be your OEM immunoassay reagent supplier of choice.

**Our goal is to provide you quality immunoassay reagents and OEM services that add value to your products.**

**Leading diagnostic, food pathogen, and biotech assay manufacturers choose KPL because we:**

- Produce liquid, stable substrates at the thousand-liter scale
- Manufacture antibodies in multi-gram quantities
- Accommodate specific production and quality assurance requirements

**Our bulk services include:**

### Bulk Substrates and Support Reagents

- Broad offering of low background colorimetric and chemiluminescent substrates, providing you a choice of sensitivity
- Ready-to-use immunoassay support reagents
- Large scale production of single lots

### Bulk Antibodies

- Excellent specificity and sensitivity
- Variety of classes, species, and conjugates
- Antibodies against bacteria
- Liquid concentrate, use-dilution, and lyophilized forms

### Bulk and Custom Packaging Capabilities

- Antibody fill sizes from 0.1 mg to 200 mg
- Liquid substrates and support reagents provided in up to 20-liter containers
- Products delivered ready-to-kit, according to your specifications
- Custom label production

# Expertise At Work For You

## Custom Purifications

Our proprietary affinity purification technology produces antibodies with extremely high affinity. We can apply our purification expertise and technology to isolate your polyclonal and monoclonal antibodies.

## Purification capabilities

- Affinity Purification
- Protein A
- Protein G
- Ion Exchange
- Gel Filtration
- Cross-Adsorptions
- Total IgG Fractionation
- F(ab')<sub>2</sub> Digestions

## Custom Conjugations

We routinely conjugate polyclonal and monoclonal antibodies, streptavidin, avidin, Fab and F(ab')<sub>2</sub> digestions, and peptides with the following labels:

- Enzymes, including alkaline phosphatase, horseradish peroxidase, and  $\beta$ -galactosidase
- Fluorochromes: FITC, TRITC, R-PE, Cyanine dyes (Cy<sup>TM</sup>3 and Cy5)
- Biotin
- Colloidal gold: 5 nm and 40 nm sizes
- Others available upon request

**KPL is committed to your success. Our expertise and flexible capabilities can offer additional services. Let us support you!**

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# Sensitive Substrates

## Having a Choice Is Critical for Assay Optimization

Established as an early innovator of liquid, stable substrates, KPL continues to be a leading source of detection substrates, immunohistochemical stains, and immunoassay reagents to diagnostic manufacturers. Our substrates add the following benefits to your assay:

- Stability for 1 year or more in ready-to-use form
- Less variability in your assay's performance
- Faster time-to-result and less hands-on time

**Optimizing a diagnostic assay requires selecting a detection substrate from a sensitivity continuum.**

We make your job easier by offering a wide variety of low-background chromogenic and chemiluminescent substrates to produce assay sensitivity within your desired range. These products are available in bulk quantities and in customized packaging, ready to insert into your kit.

### Optimize immunoassay sensitivity with our broad selection of substrates

	Enzyme	ELISA Sensitivity	Blotting Sensitivity
PhosphaGLO Reserve™	AP	•••••	•••••
PhosphaGLO™	AP	••••	••••
BluePhos®	AP	••	
pNPP	AP	•	
BCIP/NBT	AP		••
LumiGLO Reserve™	HRP	•••••	•••••
LumiGLO®	HRP	••••	••••
SureBlue Reserve™	HRP	•••	
SureBlue™	HRP	••	
TMB Membrane	HRP		••
TMB 2-C	HRP	••	
TrueBlue™	HRP		••
ABTS® 1-C	HRP	•	
ABTS 2-C	HRP	•	
4 CN	HRP		•
FirePhos™	AP	••	••

C = Component      • = Lowest      ••••• = Highest

### Optimize immunohistochemical assays with our selection of substrates and stains

Peroxidase	Phosphatase	$\beta$ -Galactosidase	Counterstains
HistoMark® ORANGE HistoMark BLACK HistoMark TrueBlue™ StableDAB®	HistoMark RED HistoMark BLUE	X-Gal Substrate Set	Orcein Contrast GREEN Contrast BLUE Contrast RED Propidium Iodide DAPI



# Support Reagents

## Are Behind Every Successful Diagnostic Assay

Using quality support reagents is necessary to achieve the optimal performance of antibodies and substrates in a complex immunoassay system. Let KPL make your job easier by providing high quality, ready-to-use reagents that allow you to focus on assay optimization.

### We provide value throughout the entire product development cycle.

- Proven performance in commercialized diagnostic tests
- Ready-to-use reagents save development time
- Our production capacity and custom packaging capabilities create manufacturing efficiencies for you

**Spend your resources developing your assay instead of making reagents. Integrate our high-quality, stable, and time-tested reagents into your assay.**

### Blocking Solutions

- Universal Block reduces endogenous HRP and AP enzyme activity in immunohistochemistry applications.
- Detector™ Block reduces background without affecting sensitivity in membrane-based assays.
- BSA and Milk Diluent/Blocking Solutions minimize nonspecific binding to the solid phase in most assay systems.
- Normal Serum (Goat, Mouse, Rabbit) blocks nonspecific binding in immunohistochemistry assays which can result from adsorption of undesirable antigens in the sample.

### Conjugate Stabilizers

- HRP and AP
- Extend the storage of diluted conjugates

### Substrate Stopping Solutions:

- ABTS®, TMB Stop, TMB BlueSTOP™, APstop™, and BluePhos® Stop Solutions
- Designed to stop the most common substrate reactions

### Other Immunoassay Solutions:

- Coating Solution Concentrate
- DEA Buffer Solution Concentrate
- Wash Solution Concentrate
- Biotin Wash Solution Concentrate

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# Antibodies for Diagnostics

## Developed with the Vision of Tomorrow's Immunoassay

KPL pioneered the development of large-scale affinity purified polyclonal antibodies for use in today's diagnostic applications. Using proprietary technologies that have been continually refined since our founding in 1979, and applying rigorous standards throughout the antibody production process, KPL now stands among the industry's most trusted and reliable sources for high performing antibodies.

Unlike monoclonal antibodies, polyclonal antibodies are more likely to retain their activity once they are conjugated to a tag such as alkaline phosphatase or horseradish peroxidase. Also, they have the versatility to be used as both the capture and detection antibody in sandwich immunoassay systems.

We offer a complete line of polyclonal antibodies from goat and rabbit sources for use in a variety of diagnostic immunoassays including ELISA, immunoblotting, and immunohistochemistry.

Anti-Bovine	Anti-Human
Anti-Cat	Anti-Horse
Anti-Chicken	Anti-Monkey
Anti-Deer	Anti-Mouse
Anti-Dog	Anti-Rabbit
Anti-Duck	Anti-Raccoon
Anti-Ferret	Anti-Rat
Anti-Goat	Anti-Sheep
Anti-Guinea Pig	Anti-Swine
Anti-Hamster	Anti-Turkey

In addition to highly specific unlabeled antibodies, we offer many labeling options to create sensitive antibody conjugates and molecular biology grade streptavidin conjugates for detection applications.

Alkaline Phosphatase  
Horseradish Peroxidase  
Biotin  
Cy3  
Cy5  
Fluorescein  
Colloidal Gold, 5nm  
Colloidal Gold, 40nm  
Rhodamine  
R-phycoerythrin  
DyLight Fluorescent Conjugates:  
405, 488, 549, 594, 633, 649, 680, and 800  
Others available upon request

**Leading human and animal *in vitro* diagnostic test manufacturers regard KPL's antibodies as critical components in their high performance immunoassays.**



## Providing Expertise *with* Antibodies

Choosing the right antibody will speed the development of optimal diagnostic immunoassays. KPL offers expert guidance to help you reach your product development goals faster.

### Match your assay to our selection of antibody classes

IgG	Dominant antibody found in blood and is responsible for long-term protection from disease as a secondary response. This antibody is commonly used in assays that detect blood viruses.
IgM	First antibody produced as primary response to infection. It is often used in assays for early detection of infection.
IgA	The secretory antibody found in mucous membrane secretions and sometimes in milk for passive protection of the newborn. It is often used in assays that detect infections in the respiratory and gastrointestinal tracts.
IgE	Binds to the Fc receptors on mast cells and basophils to trigger an allergic response. It is typically used in allergy testing.

### We offer a variety of antibody structures and forms

Anti-IgG Heavy & Light Chain (H+L)	<ul style="list-style-type: none"> <li>• Broadly reactive to IgG</li> <li>• Recognizes epitopes on both heavy and light chains of IgG</li> <li>• Widely used for detecting IgG in serological immunoassays</li> </ul>
Anti-Heavy Chain	<ul style="list-style-type: none"> <li>• Specific for IgG (<math>\gamma</math>), IgM (<math>\mu</math>), IgA (<math>\alpha</math>), or IgE (<math>\epsilon</math>)</li> <li>• Improves sensitivity and specificity of serological assays</li> </ul>
Anti-IgG+IgM (H+L)	<ul style="list-style-type: none"> <li>• Equal mixture of two antibodies recognizing IgG and IgM specific reactive sites</li> <li>• Ensures reproducible detection of IgG and IgM</li> </ul>
Anti-IgA+IgG+IgM (H+L)	<ul style="list-style-type: none"> <li>• Equal mixture of three antibodies that recognize IgA, IgM, and IgG specific reactive sites</li> <li>• Controls measurement of all three antibody classes in an immunoassay</li> </ul>
F(ab') <sub>2</sub> Fragment	<ul style="list-style-type: none"> <li>• Enhances assay signal in the presence of Fc receptor on cells that nonspecifically bind to whole antibody molecules</li> <li>• Reduces background in assays which involve bacterial contamination</li> <li>• Diffuses more easily through tissues to increase sensitivity in immunohistochemical assays</li> </ul>
Serum Adsorbed	<ul style="list-style-type: none"> <li>• Minimized cross-reactivity with human and animal immunoglobulins and other proteins found in serum</li> <li>• Used in assays where proteins from human or other animal species are present</li> </ul>

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## Anti-Bacteria Antibodies from Specialists

KPL stands out from most antibody suppliers with its capabilities to produce anti-bacteria antibodies for the detection of food pathogens and infectious disease agents affecting humans and animals. BacTrace® antibodies are highly characterized, affinity purified primary antibodies offering excellent specificity and sensitivity in a variety of detection systems. Positive controls are also available for each BacTrace antibody.

### Unlike monoclonal antibodies, polyclonal antibodies offer the following benefits:

- Detect a broad spectrum of bacterial species or serovars.
- Better retention of activity following conjugation to alkaline phosphatase, horseradish peroxidase, and other protein labels.
- Can be used as both the capture and detection antibody in sandwich immunoassay systems.
- Recognize a variety of cell surface and intracellular antigens, providing higher signal amplification and sensitivity.

### Use BacTrace antibodies when your requirements are:

- Specificity for both cell surface and intracellular antigens
- Molecular grade capture antibody to improve specificity of nucleic acid amplification test platforms

### Our production capacity and flexible services allow us to provide BacTrace antibodies for your specific needs.

- Multi-gram quantities from the same purification lot
- Select a BacTrace conjugate from our labeling options.
- Customize the formulation to tailor antibody specificity and sensitivity.

**We developed BacTrace antibodies to perform in today's most sophisticated food and environmental testing platforms.**

## Pathogens Can't Hide from BacTrace® Antibodies

KPL produces anti-bacteria antibodies for the most commonly tested food and environmental pathogens. Used by industry leaders for over thirty years, BacTrace antibodies are key components in today's leading food and infectious disease testing systems. They enable the development of high performance immunoassays and are ideal for use in screening samples in the research laboratory, environmental monitoring and food and beverage analysis in the industrial setting. Modifications are available to meet your specificity needs. Antibodies are available unlabeled or labeled with enzymes, fluorochromes including DyLight™ 488 with select products, and biotin. Positive control antigens are also available.

### Antibodies to Food Pathogens

- Goat Anti-*Campylobacter* species
- Goat Anti-*E. coli* O157:H7
- Goat Anti-*E. coli* O157:H7, Molecular Grade
- Goat Anti-*E. coli* O26:H11
- Goat Anti-*E. coli* O111:H8
- Goat Anti-*Listeria* species
- Goat Anti-*Listeria* species, High Sensitivity
- Goat Anti-*Salmonella* Common Structural Antigen (CSA-1)
- Goat Anti-*Salmonella* (CSA-1), Molecular Grade
- Rabbit Anti-*Shigella* species
- Rabbit Anti-*Vibrio cholerae*
- Rabbit Anti-*Vibrio* species

### Antibodies to Infectious Disease Agents

- Goat Anti-*Borrelia burgdorferi*
- Goat Anti-*Borrelia* species
- Goat Anti-*Helicobacter pylori*
- Rabbit Anti-*Legionella* species
- Rabbit Anti-*Yersinia* species

### Other Anti-Bacteria Antibodies

- Goat Anti-*Renibacterium salmoninarum*

**KPL** is a leading supplier of antibodies and protein detection reagents. Our products span the full range of users' needs from single reagents to sophisticated detection systems that offer convenience, reliability, and speed.



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