



**BacTrace®**  
Anti-Bacteria Antibodies

## Antibodies to Human, Animal, and Plant Pathogens

BacTrace® Anti-Bacteria antibodies are a powerful set of tools for the detection of human, animal, and plant pathogens. These affinity purified antibodies offer excellent specificity and sensitivity in ELISA, Western blot, lateral flow, agglutination, flow cytometry, and immunofluorescence immunoassays.

BacTrace antibodies can be used as capture or detection antibodies. As polyclonals, they are more sensitive than many commercially available monoclonal antibodies.

All BacTrace antibodies meet our high standards for potency, minimal cross reactivity, and lot-to-lot consistency, and KPL's quality management system is registered to ISO 9001. No matter whether you are interested in antibodies to human, animal, or plant pathogens, KPL offers the quality you need.

### **BacTrace Antibody Benefits**

**Versatility:** BacTrace antibodies are ideal for dual antibody capture and detection assays and platforms such as ELISA.

**Sensitivity:** BacTrace polyclonal antibodies are more sensitive than many commercially available monoclonal antibodies.

**Specificity:** Utilizing our ECAP™ technology, BacTrace polyclonal antibodies can be highly specific or broadly reactive.

**Reproducibility:** Standardized BacTrace antibody production provide consistent performance lot to lot.

**Commercial Use:** BacTrace antibodies are available for commercial use. To learn more, contact your sales representative.

**KPL** Power Your  
Immunoassays

A SeraCare Company

## Sensitivity

BacTrace polyclonal antibodies are more sensitive than many commercially available monoclonal antibodies. Unlike monoclonals, BacTrace antibodies recognize multiple epitopes on a given polyantigenic bacterium which improves sensitivity (see Fig. 1). BacTrace antibodies also eliminate concerns over expression of a single given antigen, which may be an issue with monoclonal antibodies.

Sensitivity of BacTrace Anti-*E. coli* O157:H7 Antibody

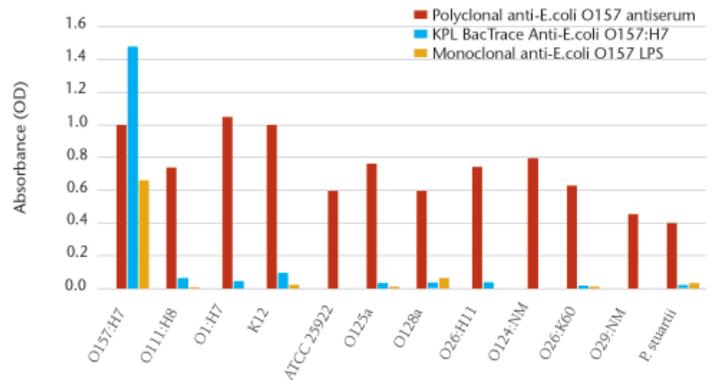


Fig. 1. BacTrace anti-*E. coli* O157:H7 antibody demonstrates enhanced sensitivity with low cross-reactivity when conjugated to monoclonal antibody and antiserum.

## Reproducibility

Making reproducible lots of polyclonal antibodies requires experience and careful control of immunogens, antisera, affinity columns, and manufacturing processes. With 30 years of experience, KPL has learned how to manufacture consistent lots (see Fig. 2), ideal for research or commercial assays. Control starts with rigorous standards for our bacterial cultures used as immunogens. It extends to our screening of antiserum which after acceptance is pooled to minimize animal to animal variability. Finally, our affinity purification process is carefully monitored and controlled to produce antibody lots that are remarkably similar — lot after lot.

Reproducibility of BacTrace Anti-*E. coli* O157:H7 Antibody

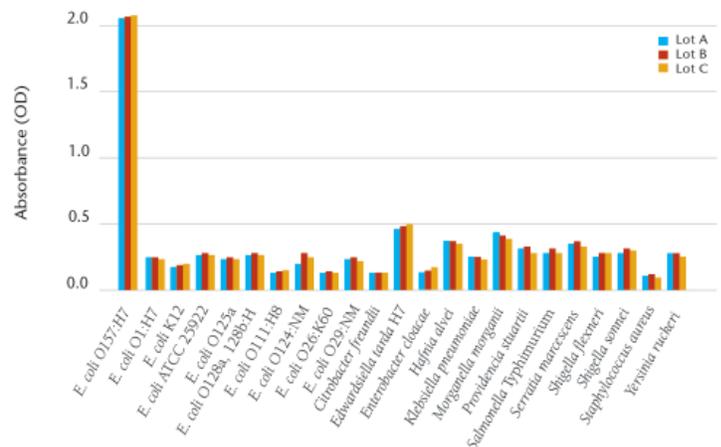


Fig. 2. KPL tested three lots of BacTrace Anti-*E. coli* Antibody against a panel of bacteria by ELISA. The three lots yielded similar reactivity patterns and demonstrated high correlation lot to lot.

## Specificity

The BacTrace development process can be “tuned” to produce highly specific or broadly reactive polyclonal antibodies. Careful antigen selection and a proprietary Encapsulated Column Affinity Purification (ECAP™) process can yield antibodies with specificity that rivals monoclonals (See Fig. 3). The same process can yield broadly reactive antibodies (See Fig. 4) that react with antigens preserved across a bacterial species.

### Highly Specific of BacTrace Anti-*E. coli* O157:H7 Antibody

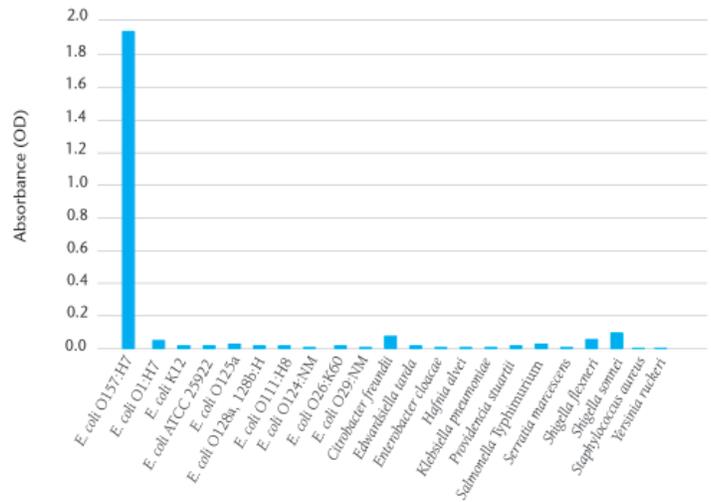


Fig. 3. An indirect ELISA showing reactivity of BacTrace Anti-*E. coli* O157:H7 Antibody. The antibody is highly selective for the O157:H7 serotype and reacts minimally with other potentially cross-reacting serotypes.

### Broadly Reactive of BacTrace Anti-*Salmonella* Antibody

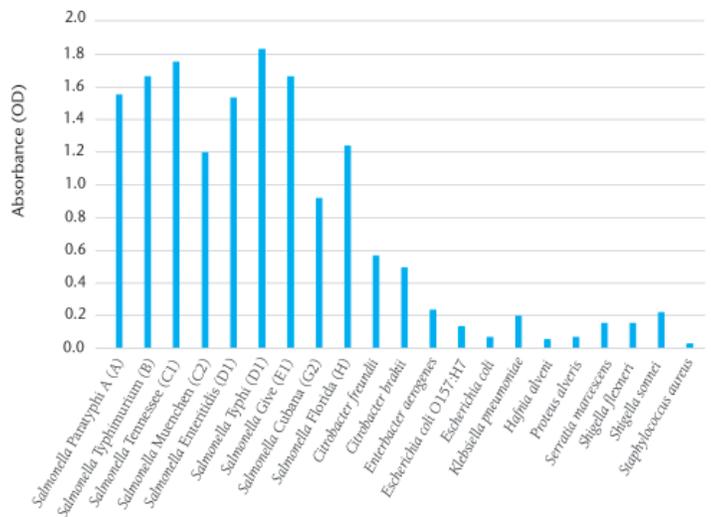


Fig. 4. ELISA showing reactivity of Anti-*Salmonella* CSA-1 Antibody. This antibody is broadly reactive to *Salmonella* serotypes with low cross-reactivity to non-*Salmonella* bacteria.

Visit [www.kpl.com/bactrace](http://www.kpl.com/bactrace) for our complete line.

BacTrace Primary Antibodies	Positive Control
<b>Human Pathogens</b>	
Anti- <i>Campylobacter</i> species	U A F H ✓
Anti- <i>E. coli</i> O26	U B D L M ✓
Anti- <i>E. coli</i> O91	U ✓
Anti- <i>E. coli</i> O104	U ✓
Anti- <i>E. coli</i> O111	U B D H L M ✓
Anti- <i>E. coli</i> O121	U B D H L M ✓
Anti- <i>E. coli</i> O157	U A B D F H L M ✓
Anti- <i>E. coli</i> O45	U B D H ✓
Anti- <i>E. coli</i> O145	U B D H L M ✓
Anti- <i>E. coli</i> O103	U B D H L M ✓
Anti- <i>Listeria</i> species	U A B F H ✓
Anti- <i>Salmonella</i> CSA-1	U A B D F H L M ✓
Anti- <i>Salmonella</i> CSA-Plus	U ✓
Anti- <i>Shigella</i> species	U B D H ✓
Anti- <i>Vibrio</i> species	U ✓
Anti- <i>Vibrio cholera</i>	U B D H ✓
<b>Other Human Pathogens</b>	
Anti- <i>Staphylococcus aureus</i>	U ✓
Anti- <i>Streptococcus pyogenes</i> (Group A)	U ✓
Anti- <i>Streptococcus agalactiae</i> (Group B)	U ✓
Anti- <i>Borrelia</i> species	U F H ✓
Anti- <i>Borrelia burgdorferi</i>	U A F H ✓
Anti- <i>Helicobacter pylori</i>	U F H ✓
Anti- <i>Legionella</i> species	U B D H ✓
Anti- <i>Yersinia</i> species	U B D H ✓
<b>Animal and Plant Pathogens</b>	
Anti- <i>Clavibacter michiganensis</i> ssp. <i>michiganensis</i>	U ✓
Anti- <i>Renibacterium salmoninarum</i>	U A F H ✓

**U** Unlabeled  
**A** AP  
**B** Biotin  
**D** DyLight 488  
**F** FITC  
**H** HRP  
**L** Latex Beads  
**M** Magnetic Beads

To order or for more information on KPL's line of immunoassay products, contact us at 800.638.3167/301.948.7755, fax 301.948.0169, [KPLcustserv@seracare.com](mailto:KPLcustserv@seracare.com) or visit [www.kpl.com](http://www.kpl.com).



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