

# 2009 Antibody Survey Questionnaire

## Antibody Questionnaire

### 1. In which type of institution do you work?

- Academic
- Biotechnology
- Pharmaceutical
- Government
- Private Research
- Clinical/Hospital
- Other, please specify \_\_\_\_\_

### 2. Which title best applies?

- Professor/Instructor
- Business Development Director/Manager
- Research Director/VP of Research
- Department Head
- Technician/Research Assistant
- Lab Manager/Supervisor
- Account Manager/Sales Executive
- Research Associate
- Graduate Student
- Staff Scientist
- Principal Investigator
- President/CEO/Owner/VP
- Lab Director/Chief Scientist
- Postdoctoral Fellow
- Procurement Manager/Purchasing Agent
- Consultant
- Process Engineer
- Other, please specify \_\_\_\_\_

### 3. Which of the following are your key areas of research or work? (Select all that apply)

- Bioinformatics
- Microbiology/Virology
- Immunology
- Genomics/Genetics
- Cell Biology
- Diagnostics/Pathology
- Drug Discovery
- Administration
- Biochemistry
- Marketing/Sales
- Pharmacology/Toxicology
- Molecular Biology
- Bioengineering
- Neuroscience
- Proteomics
- Purchasing
- Cell Signaling
- Other, please specify \_\_\_\_\_

### 4. Which best describes your purchasing authority?

- Authorize
- Recommend
- Evaluate
- No Purchase Role

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**5. What types of antibody-based applications do you perform or plan to perform in the next 12 months? (Select all that apply)**

*Respondents must select Currently use for at least one application or they are screened out of the survey.*

	Currently use	Plan to use	Do not use or plan to use
Affinity Purification	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Blocking/Neutralize	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ChIP	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Electron Microscopy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ELISA/EIA	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Flow Cytometry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Functional Assay	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fluorescence Microscopy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gel Shift	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Immunocytochemistry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Immunodiffusion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Immunohistochemistry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Immunoprecipitation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
IRMA	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Microarray	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Radioimmunoassay	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Western Blot	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other application, please specify \_\_\_\_\_

**6. Please indicate your major objective(s) for using antibodies. (Select all that apply)**

- Identity of marker/analytes for basic research
- Quantitation of marker/analyte for basic research
- Mechanism of action/pathway analysis
- Diagnostic application
- Screening application
- Functional or therapeutic use
- Other, please specify \_\_\_\_\_

**7. Please estimate how many antibody-based applications you perform on a weekly basis. (e.g. western blots, immunoassays, affinity purifications, flow cytometry, etc.)**

- Less than 1
- 1 - 2
- 3 - 5
- 6 to 10
- 11 to 20
- More than 20

**8. How do you expect this number to change over the next 12 months?**

- Increase by > 50%
- Increase by 25% to 50%
- Increase by 10% to 25%
- Increase by 1% to 10%
- No change
- Decrease by 10% to 25%
- Decrease by 10% to 25%
- Decrease by 25% to 50%
- Decrease by > 50%

**9. Please estimate how much money (in \$USD) your laboratory spends on antibodies per month.**

	Less than \$500	\$500 to \$1,000	\$1,000 to \$2,000	More than \$2,000	I don't know
Spent per month in 2008	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Plan to spend per month in 2009	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**10. What do you consider to be an acceptable price (in \$USD) for 100ug/ul of primary antibody that allows you to perform 10 western blots?**

- \$245
- \$295
- \$345
- Other, please specify \_\_\_\_\_

**11. How often do you purchase antibodies that you use routinely?**

- Daily
- A few times a week
- Weekly
- A few times a month
- Monthly
- A few times a year
- Yearly
- Less than once a year
- Never

**12. How often do you purchase the following antibodies you have never purchased before?**

	Daily	A few times a week	Weekly	A few times a month	Monthly	A few times a year	Yearly	Less than once a year	Never
A new antigen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A new conjugate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A new species (reactivity)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**13. Which of the following best describes your typical antibody purchase?**

- I shop around only when purchasing an antibody not available from my usual supplier
- I shop around every time I purchase an antibody
- I always purchase from the same supplier

**14. When there is no published data available, what are the top three criteria you use when shopping for a new antibody? (Select exactly three)**

- Best price (if quality is acceptable)
- Colleague recommendation
- Fastest delivery
- Low cross-reactivity
- Sensitivity
- Specificity
- Trusted brand name
- Widest selection (hard-to-find antibodies)
- Other, please specify \_\_\_\_\_

**15. Which species do you most often study in your research? (Select all that apply).**

- Human
- Mouse
- Rat
- Non-Human Primate
- Other, please specify \_\_\_\_\_

**16. What are the top companies that come to mind when you think of antibodies in general? (Please list up to three companies)**

Company 1: \_\_\_\_\_  
Company 2: \_\_\_\_\_  
Company 3: \_\_\_\_\_

**17. What are the top companies that come to mind when you think of flow cytometry antibodies? (Please list up to three companies)**

Company 1: \_\_\_\_\_  
Company 2: \_\_\_\_\_  
Company 3: \_\_\_\_\_

**18. Which of the following types of antibodies do you use? (Select all that apply)**

- |   |   |
|---|---|
| <input type="checkbox"/> Adaptive Immunity                      | <input type="checkbox"/> Membrane Transporter/Protein                           |
| <input type="checkbox"/> Angiogenesis                           | <input type="checkbox"/> Intracellular Staining of Phosphorylated               |
| <input type="checkbox"/> Apoptosis/Tumor Suppressor             | <input type="checkbox"/> Metabolic Pathways                                     |
| <input type="checkbox"/> CD and Cell Surface Marker             | <input type="checkbox"/> Modification State Specific (phosphor, acetyl, methyl) |
| <input type="checkbox"/> Cell Cycle                             | <input type="checkbox"/> Neurobiology   |
| <input type="checkbox"/> Cell Signaling/Signal Transduction     | <input type="checkbox"/> Nuclear Function                                       |
| <input type="checkbox"/> Cytokine and Growth Factor             | <input type="checkbox"/> Secondary/Immunoglobulin Specific                      |
| <input type="checkbox"/> Cytoskeleton                           | <input type="checkbox"/> Stem Cell  |
| <input type="checkbox"/> DNA Damage and Repair                  | <input type="checkbox"/> Toll Receptor  |
| <input type="checkbox"/> Epitope-tagged (e.g. anti-His)         | <input type="checkbox"/> Transcription Factor/Regulation                        |
| <input type="checkbox"/> Extracellular Matrix and Cell Adhesion | <input type="checkbox"/> Translational Control                                  |
| <input type="checkbox"/> Infectious Disease                     | <input type="checkbox"/> Other, please specify _____                            |
| <input type="checkbox"/> Inflammation Research                  | <input type="checkbox"/> None of the above                                      |
| <input type="checkbox"/> Innate Immunity                        |   |
| <input type="checkbox"/> Intracellular Signaling Proteins       |   |

**19. From which compan(ies) do you primarily purchase [type] antibodies? (Select all that apply)**

*There will be a separate question for each Ab type selected in Q18.*

- |  |   |
|--|---|
| <input type="checkbox"/> Internal preparation/made in-house      | <input type="checkbox"/> EMD Biosciences                                      |
| <input type="checkbox"/> Abcam                                   | <input type="checkbox"/> Invitrogen (Zymed/Caltag/Molecular Probes/BioSource) |
| <input type="checkbox"/> AbD Serotec                             | <input type="checkbox"/> Jackson Immunoresearch                               |
| <input type="checkbox"/> Abgent                                  | <input type="checkbox"/> MBL  |
| <input type="checkbox"/> Abnova                                  | <input type="checkbox"/> Meridian/BioDesign                                   |
| <input type="checkbox"/> Acris                                   | <input type="checkbox"/> Millipore (Chemicon/Upstate)                         |
| <input type="checkbox"/> Affinity Bioreagents (ABR) (now Thermo) | <input type="checkbox"/> Novus Biologicals                                    |
| <input type="checkbox"/> Assay Designs/Stressgen                 | <input type="checkbox"/> PeproTech  |
| <input type="checkbox"/> Aviva Systems Biology                   | <input type="checkbox"/> R&D Systems  |
| <input type="checkbox"/> BACHEM                                  | <input type="checkbox"/> Rockland Immunochemicals                             |
| <input type="checkbox"/> Beckman Coulter                         | <input type="checkbox"/> Santa Cruz Biotechnology                             |
| <input type="checkbox"/> BD Biosciences                          | <input type="checkbox"/> Sigma  |
| <input type="checkbox"/> Bethyl                                  | <input type="checkbox"/> Signalway Antibody Company                           |
| <input type="checkbox"/> BioLegend                               | <input type="checkbox"/> Thermo Scientific                                    |
| <input type="checkbox"/> Cayman Chemical                         | (LabVision/Endogen/Fisher)  |
| <input type="checkbox"/> Cell Signaling Technology               | <input type="checkbox"/> Other, please specify _____                          |
| <input type="checkbox"/> Covance Research Products               | <input type="checkbox"/> Don't know/can't remember                            |
| <input type="checkbox"/> Dako                                    |   |
| <input type="checkbox"/> eBioscience                             |   |

**20. Which of the following antibody suppliers would you say you are most familiar with? (Select up to five companies)**

- |  |   |
|--|---|
| <input type="checkbox"/> Abcam                                   | <input type="checkbox"/> EMD Biosciences                                      |
| <input type="checkbox"/> AbD Serotec                             | <input type="checkbox"/> Invitrogen (Zymed/Caltag/Molecular Probes/BioSource) |
| <input type="checkbox"/> Abgent                                  | <input type="checkbox"/> Jackson Immunoresearch                               |
| <input type="checkbox"/> Abnova                                  | <input type="checkbox"/> MBL  |
| <input type="checkbox"/> Acris                                   | <input type="checkbox"/> Meridian/BioDesign                                   |
| <input type="checkbox"/> Affinity Bioreagents (ABR) (now Thermo) | <input type="checkbox"/> Millipore (Chemicon/Upstate)                         |
| <input type="checkbox"/> Assay Designs/Stressgen                 | <input type="checkbox"/> Novus Biologicals                                    |
| <input type="checkbox"/> Aviva Systems Biology                   | <input type="checkbox"/> PeproTech  |
| <input type="checkbox"/> BACHEM                                  | <input type="checkbox"/> R&D Systems  |
| <input type="checkbox"/> Beckman Coulter                         | <input type="checkbox"/> Rockland Immunochemicals                             |
| <input type="checkbox"/> BD Biosciences                          | <input type="checkbox"/> Santa Cruz Biotechnology                             |
| <input type="checkbox"/> Bethyl                                  | <input type="checkbox"/> Sigma  |
| <input type="checkbox"/> BioLegend                               | <input type="checkbox"/> Signalway Antibody Company                           |
| <input type="checkbox"/> Cayman Chemical                         | <input type="checkbox"/> Thermo Scientific                                    |
| <input type="checkbox"/> Cell Signaling Technology               | (LabVision/Endogen/Fisher)  |
| <input type="checkbox"/> Covance Research Products               | <input type="checkbox"/> Other, please specify _____                          |
| <input type="checkbox"/> Dako                                    | <input type="checkbox"/> Don't know/can't remember                            |
| <input type="checkbox"/> eBioscience                             |   |

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**21. How would you rate the following product and service characteristics of the antibody suppliers you selected?**

*Only the suppliers selected in Q20 will appear in the table.*

**Drop down rating scale:**

- 1 = Excellent
- 2 = Very good
- 3 = Average
- 4 = Fair
- 5 = Poor
- Don't know

Supplier	Antibody Sensitivity	Antibody Specificity	Value	Usefulness of Website	Technical Support
Abcam	<i>Rating scale</i>				
AbD Serotec					
Abgent					
Abnova					
Acris					
Affinity Bioreagents (ABR)					
Assay Designs/Stressgen					
Aviva Systems Biology					
BACHEM					
Beckman Coulter					
BD Biosciences Pharmingen					
Bethyl					
BioLegend					
Cayman Chemical					
Cell Signaling Technology					
Covance Research Products					
Dako					
eBioscience					
EMD Biosciences/Calbiochem					
Invitrogen (Zymed/Caltag/Molecular Probes/BioSource)					
Jackson Immunoresearch					
MBL					
Meridian/BioDesign					
Millipore (Chemicon/Upstate)					
Novus Biologicals					
PeproTech					
R&D Systems					
Immunochemicals					
Biotechnology					
Sigma					
Signalway Antibody Company					
Thermo Scientific (LabVision/Endogen/Fisher)					

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## 22. What type of CUSTOM services do you use or plan to use? (Select all that apply)

	Currently Use	Plan to Use	Do not Use or Plan to Use
Ascites hybridoma expansion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Polyclonal antibody development	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Antibody purification	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Antibody conjugation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Immunohistochemistry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Assay development	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In vitro hybridoma expansion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Monoclonal antibody development	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stable cell line development	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Custom plate coating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Animal housing and care	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Peptide synthesis	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## 23. How do you currently develop or plan to develop custom monoclonal antibodies? (Select all the apply)

*Only ask if Q22 is "Currently use" or "Plan to use" for Monoclonal antibody development.*

- In-house facility
- Mouse monoclonal company
- Rabbit monoclonal company
- HuCAL recombinant monoclonal company
- Other, please specify \_\_\_\_\_

## 24. Are there antibodies against specific targets, species, or for particular applications for which you have not been able to find a supplier? (Select all that apply)

- I have not been able to find a supplier of an antibody to a particular target
- I have not been able to find a supplier of an antibody against a particular species
- I have not been able to find a supplier of an antibody which works in a particular application
- None of the above

## 25. Please list 1 to 3 specific targets for which you have not been able to find an antibody.

If the target is a particular protein modification, please specify amino acid and residue number.

*Only ask if response 1 is selected in Q24.*

Target 1: \_\_\_\_\_

Target 2: \_\_\_\_\_

Target 3: \_\_\_\_\_

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**26. Please name at least one antibody and species for which you can't find a supplier. Only ask if response 2 is selected in Q24.**

	Antibody	Species
1.		
2.		
3.		

**27. Please name at least one antibody and application for which you can't find a supplier. Only ask if response 3 is selected in Q24.**

	Antibody	Application
1.		
2.		
3.		

**28. If a key antibody for your research is not available from a commercial supplier, which of the following actions are you most likely to take? (Select all that apply)**

- Make a polyclonal antibody in house
- Make a monoclonal antibody in house
- Outsource to make a polyclonal antibody
- Outsource to make a monoclonal antibody
- Other, please specify \_\_\_\_\_

**29. Which of the following would you identify as the biggest technical problem with your antibody-based methods?**

- Lack of sufficient specificity
- Lack of available antibodies which are sufficiently specific
- Non-availability of direct conjugates
- Methods are not sufficiently quantitative
- Antibodies to certain targets are not available
- Other, please specify \_\_\_\_\_

**30. Assume the quality of an antibody (i.e. specificity, sensitivity) is the same among suppliers. Please rate the following characteristics on how important each is in your decision to purchase from one supplier over another.**

	1 = Very Important	2	3	4	5 = Not Important
Price	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online resources (e.g. protocols, application notes)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Availability of samples	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Published results	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Helpful technical support	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**31. Please indicate which of the following antibody conjugates, probes, sets or kits you use.**

- Fluorochrome labels
- Chemiluminescent labels
- Radioisotope label
- Enzyme labels
- Biotin label
- Nanocrystal/ Quantum Dots
- Beads
- None of the above

**32. Do you use directly conjugated primary antibodies?**

- Yes
- No

**33. What percent of your antibody purchases are directly conjugated primary antibodies?**

*Only ask if "yes" in Q32 is selected.*

- 1 to 10%
- 10 to 20%
- 20 to 50%
- > 50%

**34. Which of the following commercially available secondary antibody conjugates do you prefer to use? (Select all that apply)**

- Alexa Dye
- Alkaline Phosphatase (AP)
- APC
- Biotin
- CyDye
- DyLight
- FITC/fluorescein
- Horse Radish Peroxidase (HRP)
- IRDyes/IRDyes
- PE
- Quantum Dots
- Other, please specify \_\_\_\_\_
- I do not purchase commercially available secondary antibodies – I perform secondary antibody conjugation myself
- I do not use secondary antibodies

**35. Do you currently use or plan to use bulk quantities of antibodies?**

- Currently use
- Plan to use – within 6 months
- Plan to use – within 12 months
- Plan to use – in more than 12 months
- Do not use or plan to use

**36. What is the antigen and species of the bulk antibody you use or plan to use? (e.g. Mouse anti-human CD42a) \_\_\_\_\_**

*Only ask if "Currently use" or "Plan to use" is selected in Q35.*

**37. Please rate the following characteristics of an antibody supplier's web content. (1 = Very Important, 5 = Not Important)**

	1 = Very Important	2	3	4	5 = Not Important
Comprehensive reference materials (pathways, protocols, etc)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online promotions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
New product listings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Product validation data	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
eCommerce capability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Relevant search results	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Available pricing information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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**38. Where do you look for antibodies? (Select your top three resources; 1= Most frequently utilized)**

	1	2	3
AfCS Antibody Database	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Antibody Resource Page	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Biocompare	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
BioResearchOnline	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Colleague referral	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Conferences	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Email newsletters	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Exact Antigen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Google	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Journal advertisements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Journal references	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Linscott's Directory of Immunological and Biological Reagents	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
MSRS	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sciquest	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
SelectScience	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Supplier catalogs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Supplier websites	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other, please specify below	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other resource \_\_\_\_\_

**39. How important is it for the products you use in the lab to have the following labels/marks?**

	1 = Very Important	2	3	4	5 = Not Important
IVD Label	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ASR Label	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
CE Label	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>