

Immunoassay Survey

1. Do you currently use immunoassays in your research?

- Yes
- No, but plan to in the next 12 months - *screened out of survey*
- No – *screened out of survey*

2. What is your primary purpose for performing immunoassays?

- Assay Development
- Basic Research
- Biomarker development/screening
- Clinical research
- In vitro diagnostics
- Infectious disease testing
- Isotyping
- Lead characterization
- Protein expression analysis
- Immune Response
- Other (please specify)

3. What type(s) of enzyme immunoassay procedures do you currently use in your research or work? (Select all that apply)

- EIA
- ELISA
- ELISPOT
- Fluorescence polarization assays
- Immunoblotting (Western blot)
- Immunohistochemistry
- In vivo capture assays
- Multiplex assays
- Proteomic Arrays
- RIA
- Other, please specify _____
- None of the above – *screened out of survey*

4. Who are your preferred suppliers of the assay types you selected? Please select your first through third choices.

(Separate question for each assay type)

- | | |
|---------------------------|-------------------|
| - Alpco Diagnostics | - BioLegend |
| - Assay Designs/Stressgen | - Bio-Rad |
| - BD Biosciences | - Calbiochem |
| - Bender MedSystems | - Cayman Chemical |

- Cell Sciences
- Cell Signaling Technology
- Diagnostic Systems Laboratories
- eBioscience
- GE Healthcare (formerly Amersham)
- Immuno-Biological Laboratories, Inc
- Invitrogen (BioSource)
- Millipore (Upstate/Chemicon/Linco)
- Neogen
- Oxford Biomedical Research
- Pierce/Endogen (now Thermo)
- PerkinElmer
- R&D Systems
- Sigma
- StemCell Technologies
- Other, please specify

5. How likely is it that you would recommend these companies to a friend or colleague? Please rate on a scale of 1-10.

(Respondents will only rate the companies they selected)

1 = Not at all likely, 10 = Very likely

If performing multiplex assays, ask 6 through 13:

6. Who is your preferred supplier of multiplex assay kits?

- BD Biosciences
- Bio-Rad
- Millipore (Linco, Upstate, Chemicon)
- Invitrogen (BioSource)
- Qiagen
- R&D Systems
- Meso Scale Discovery
- Pierce/Endogen (now Thermo Fisher Scientific)
- Luminex
- Other (please specify)

7. Which multiplex instrument do you use?

- BD Biosciences
- Bio-Rad
- Luminex
- Meso Scale Discovery
- Other, please specify

8. How likely is it that you would recommend Company X (from Q6,7) to a friend or colleague? Please rate on a scale of 1-10.

1 = Not at all likely, 10 = Very likely

9. Which of the following bead-based multiplex assay products do you currently use?

- Preconfigured kits
- Custom coupled beads and antibodies
- Beads for self-coupling
- Nucleic acid – Molecular Biology formats
- Other (please specify)

10. Do you utilize the consumables and the instrument from the same source?

- Always if they offer both
- Yes, unless I need a specific analyte
- Preferred but not always
- Other (please specify)

11. Please rate the following providers on their overall system of instruments, reagents and software products on a scale of 1 to 5.

(1 = Inferior, 5 = Superior, 6 = I don't know)

- | | |
|--|-------------------------------|
| - BD Biosciences | - R&D Systems |
| - Bio-Rad | - Meso Scale Discovery |
| - Millipore (Linco, Upstate, Chemicon) | - Pierce/Endogen (now Thermo) |
| - Invitrogen (BioSource) | - Luminex |
| - Qiagen | - Other (please specify) |

12. How many analytes do you typically measure within a single sample?

- 1
- 2 – 10
- 11 – 25
- 26 – 50
- 51 – 100

13. How many replicates do you normally run per sample?

- Duplicates -2 per sample
- Triplicates - 3 per sample
- More than 3

14. Which of the following analyte type(s) do you measure using immunoassays? (Select all that apply)

- | | | |
|--|------------------------------|--------------------------|
| - Acute Phase | - Cytoskeleton | - Phosphatase |
| - Allergy | - Diabetes | - Phospho Amino Acid |
| - Angiogenesis | - Endocrine/Hormone | - Stem Cell |
| - Apoptosis | - Glycoproteins/Glycobiology | - Transcription Factors |
| - Autoimmunity | - Immune Monitoring | - Translational Control |
| - Cell Adhesion | - Immunoregulation | - Other (please specify) |
| - Cell Cycle | - Infectious disease | |
| - Cell Signaling/
Signal Transduction | - Innate Immunity | |
| - Chemokines | - Neurobiology | |
| - Cytokines and Growth
Factors | - Nuclear Function | |
| | - Oxidative Stress | |

15. What sample types/species are you studying in your research? (Select all that apply)

	Human	Mouse	Rat	Non-human Primate	Other species
Serum					
Plasma					
Cell lysate					
Cell culture supernatant					
Bodily fluids (i.e. CSF, tears)					
Other, please specify					

16. What type(s) of detection methods do you primarily use? (Select all that apply)

- Colorimetric
- Chemiluminescent
- Fluorescent
- Radioisotope
- Other (please specify)

17. Please rate the following immunoassay features from 1 to 5 on a scale of importance to you. (1 = Least Important, 5 = Most Important)

- | | |
|-------------------------------------|---|
| - Sensitivity | - Throughput |
| - Low cross reactivity/interference | - Sample Prep |
| - Affordability | - Automation |
| - Short protocol time | - Bioinformatics and readout |
| - Assay precision | - Ease of Use |
| - Reproducibility | - Compatible with serum, plasma and lysates or supernatants |
| - Dynamic range | - Other (please specify) |
| - Density of Information | |

18. Which of the following products and services are you planning to purchase and what is your purchasing timeframe?

Within 3 months *3 – 9 months* *9 – 12 months* *More than 12 months*

- | | |
|-------------------------------------|---|
| - Microplate reader | - Blot/gel documentation system |
| - Integrated multiplex assay system | - Dot/slot blotter |
| - Flow cytometer | - Microplate washer |
| - Multiplex software | - Multiplex bead-based assay automated washer |
| - Multiplex assay services | - Microarray reader |
| - Assay design services | - Chip based platform |
| - Automated microplate handler | |

19. On average, how many samples do you analyze per week?

- Less than 10
- 11 – 25
- 20 – 50
- 51 – 100
- 101 – 250
- 251 – 500
- More than 500

20. How do you expect the total number of samples analyzed in your lab to change over the next 12 months?

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

21. What size multiwell plate does your lab primarily use for immunoassays?

- 384-well
- 96-well
- 48-well
- 24-well
- 12-well
- 6-well
- Other (Please specify)

22. On average, how many multiwell plates are processed in your lab per week?

- Less than 1
- 1 – 2
- 3 – 5
- 6 – 10
- 11 – 20
- More than 20
- Not sure

23. Please rate the importance of control standards being included in assay kits. Rate on a scale of 1 to 5 (1 = Not Important, 5 = Very Important).

24. Does your lab use any of the following immunoassay services?

Yes, currently use

See a potential need in the future

Don't currently use and don't see any future needs

- Assay Design/Development
- cGMP Validation Services
- Target Identification/Validation
- Lead Identification/Optimization
- Screening
- Preclinical/Clinical Services

25. What problems/limitations have you encountered in using immunoassays?

(Select all that apply)

- Adapting assay to high throughput format
- Cost of detection equipment
- Price of assay kits and/or reagents
- Time to results
- Decreased sensitivity
- Irreproducibility
- Low signal-to-noise
- Quality control
- Labor intensive
- Lack of quantifiability
- Lack of appropriate secondary antibody
- Ease of Use
- Bioinformatics
- Data Presentation
- Other (please describe)

26. Do you have any suggestions you would like to provide to suppliers when designing next generation immunoassay instruments and reagents? (open-ended)

Demographic Questions

27. In which type of institution do you work?

- Academic
- Pharmaceutical
- Private Research
- Other (Please specify)
- Biotechnology
- Government
- Clinical/Hospital

28. Which title best applies?

- Professor/Instructor
- Lab Manager/Supervisor
- Business Development Director/Manager
- Department Head
- Account Manager
- Staff Scientist
- President/CEO/Owner/VP
- Postdoctoral Fellow
- Consultant
- Product Manager
- Process Engineer
- Research Associate
- Research Director/VP of Research
- Technician/Research Assistant
- Graduate Student
- Principal Investigator
- Lab Director/Chief Scientist
- Procurement Manager
- Other

29. What is your highest professional degree?

- PhD
- Masters Degree
- Undergraduate Degree
- MD
- MD/PhD
- Other, please specify

30. Which best describes your purchasing authority?

- Authorize
- Recommend
- Evaluate
- No Purchase Role

31. Which of the following are your key areas of research or work?

- Bioinformatics
- Genomics/Genetics
- Drug Discovery
- Marketing/Sales
- Bioengineering
- Biomufacturing /Process Development
- Microbiology/Virology
- Cell Biology
- Administration
- Pharmacology/Toxicology
- Neuroscience
- Purchasing
- Cell Signaling
- Immunology
- Diagnostics/Pathology
- Biochemistry
- Molecular Biology
- Proteomics
- Other