Antibody Learning Hub

Learn it your way

Webinars

Webinar Title	Description	Learning Points	Click Icon to Access Webinar
IHC			
Mastering Immunohistochemistry (IHC) Staining Experiments	Basic overview of the different IHC protocol steps (with a focus on sample preparation, reagent selection, antigen retrieval and antibody staining).	▪ IHC procedure overview ▪ IHC protocol ▪ Most common IHC pitfalls ▪ Tips and tricks and troubleshooting advice	
IP			
Immunoprecipitation (IP) – "Complex or not?"	Overview of the immunoprecipitation (IP) procedure and hands-on-advice on how to design and control IP experiments.	▪ Experimental design (what beads to use, selecting the best antibody, elution methods) ▪ Best IP practices and controls ▪ Common pitfalls ▪ Setting up a co-immunoprecipitation experiment ▪ Troubleshooting tips	
Flow Cytometry			
Optimize Your Flow Cytometry	The quality of flow cytometry data is dependent on the quality of your cells. Understanding the best method of cell preparation, staining protocols and cell analysis can be crucial to obtaining valid data.	▪ Best practice to prepare single cell suspensions from different sources to have a viable, contamination free sample ▪ Staining tips ▪ Understand how dead cell and doublet removal can improve your data	
Take Control of Your Flow Cytometry	Takes you through the essential controls you should be performing, whether it is a 4 or 14 color panel, to obtain reproducible results you can trust.	▪ Unstained controls ▪ Fc block ▪ Viability ▪ Isotype controls ▪ Intracellular controls ▪ Biological controls ▪ Compensation controls ▪ FMO controls	
Fluorescence and Compensation in Flow Cytometry	Why fluorophores need compensating and how to avoid unnecessary compensation.	▪ Basic fluorescence principles ▪ What is compensation and why you need to apply it ▪ Compensation controls ▪ How to avoid compensation in small panels ▪ Common rules to help build more complex panels	
Multicolor Panel Building in Flow Cytometry	Multicolor fc is the analysis of multiple fluorescent parameters in one sample. Building large fc panels can be daunting because each additional fluorophore you add to your panel has the potential to influence another fluorophore.	▪ Which fluorophores are compatible with each other ▪ How fluorophores interact and can affect your staining ▪ How to obtain optimal resolution of signal ▪ How dump channels, fluorophore brightness, antigen density, marker expression patterns and instrument configuration can all contribute to improving your panel design	

BIO-RAD

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Flow Cytometry			
Dead or Alive on the ZE5 — Using Flow Cytometry to Measure Apoptosis	Apoptosis can be measured in many different ways and there are several assays available using varying applications. This short webinar focuses on how and when flow cytometry is the most appropriate method to detect apoptosis.	▪ Guidance on common assays allowing you to detect different stages of apoptosis, with examples, using the ZE5 Cell Analyzer from Bio-Rad ▪ Helpful tips to make the most of your apoptosis experiments	
To Boldly Flow	A step-by-step guide to starting flow cytometry with useful information and tips to help you plan, execute and interpret your experiments, ensuring you get the best results. We also demonstrate how the new panel builder tool from Bio-Rad can help you design your experiments.	▪ The important steps to obtaining better flow cytometry data ▪ Advice on how to apply this knowledge to improve your experiments	
FC Shorts: Viability Controls	The quality of flow cytometry data is often dependent on the quality of your sample. The viability of your sample is important as dead cells will have high autofluorescence and bind antibodies nonspecifically.	▪ Why cell viability is so important ▪ Why you should perform viability controls ▪ What viability controls are available	
FC Shorts: Isotype Controls	Isotype controls are one of the controls that can improve your experiment by determining background staining. However they have to be used correctly and in the right situation.	▪ The role of isotype controls ▪ How to choose the right isotype control ▪ When and how to use them ▪ The role of unstained and isoclonic controls	
FC Shorts: Compensation Controls	Flow cytometry relies on fluorophores conjugated to antibodies to detect markers of interest both on the cell surface and intracellular. Fluorophores are molecules that accept light energy at a given wavelength, in flow cytometry from lasers, and rapidly emit this light at a longer wavelength.	▪ Why you need compensation controls and how to perform them correctly ▪ Why fluorescent minus one controls are essential for confirmation of staining, especially in large panels	
FC Shorts: Other Flow Controls	An overview of less common flow cytometry controls worth considering in your experiment and their benefits.	▪ Role of Fc receptor controls ▪ Types of experimental and biological controls ▪ Controls for intracellular staining	
Western Blotting			
Western Blot Normalization Methods	Western blotting continues to be a ubiquitous tool for the identification and quantitation of protein(s) of interest. In order to obtain accurate results when quantitating protein abundance or protein modification, several methods are available, including exogenous controls, housekeeping protein normalization, and total protein normalization.	▪ Discussion of three popular normalization techniques, guidelines for publishing data using these techniques, and important considerations to obtain meaningful, reliable, and repeatable measurements.	
Best Practices for the Best Western Blots	Generating publication-quality western blots requires not just good technique but a thorough understanding of how each step in the workflow can affect data quality and reproducibility. This webinar focuses on decoding each step of the process.	▪ How to prepare your cell/tissue lysate sample ▪ How to estimate protein accurately ▪ Gel/buffer chemistries, choosing the right gel and buffer chemistries ▪ Best practices for running a gel, transferring proteins to a membrane, and blocking ▪ How to choose the best detection reagents ▪ Data analysis tools and tips	

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Western Blotting			
Advancements in Western Blotting Technology: a Western Workflow That Delivers More Precise, Accurate, and Reproducible Results	The basic principle has remained largely unchanged since the technique's inception decades ago when it was used only to detect the presence or absence of target proteins in complex mixtures or homogenates. The production of reproducible and quantitative data remains elusive for many scientists. This stems mainly from the experimental technique, which has not evolved at the same pace as the associated tools.	▪ Explanation of why the traditional WB methodology precludes production of reproducible data, and it defines a simple approach to obtaining truly quantitative results	
Generating Semi-Quantitative Western Blot Data Using Bio-Rad's Image Lab 6.0 Software	Western blotting is a popular tool for protein quantitation, and the advent of digital imaging has greatly increased the sensitivity, dynamic range, and quantitation limits of this technique.	▪ A step-by-step guide for using Image Lab 6.0 Software for western blot normalization	
See the Signal — Illuminating the Pathway to Confident Western Blot Detection of Phosphorylated Proteins	Detecting protein phosphorylation events and aberrant phosphorylation levels is essential for research into various biological and pathological processes. However, detection of phosphorylated proteins by western blotting can be challenging.	You will learn the important steps to obtain clean blots of phospho-proteins. These include: ▪ Selecting antibodies ▪ Preparing lysate samples ▪ Blotting and washing buffer selection ▪ Applying best practices for phosphatase treatment ▪ Determining cross-reactivity to total proteins ▪ Choosing the best controls ▪ Quantifying phosphorylation levels using total protein normalization	
Fluorescent Immunoblots and Multiplex Analysis	This webinar outlines protocols for fluorescent immunoblots, focusing on the multiplex analysis of complex samples. In addition, discussion of recent advancements in fluorophores used in western blotting and multiplex image acquisition.		

Videos

Video Title	Description	Learning Points	Click Icon to Access Video
Isotype Specific Secondary Antibodies			
Bio-Rad's Isotype Specific Secondary Antibodies	This video demonstrates SDS-PAGE separation of proteins using the Bio-Rad Comparative Proteomics Kit II: Western Blot Module.	▪ Demonstration of how, by using Bio-Rad's Isotype Specific Secondary Antibodies, you can achieve accurate results you can trust in only two steps	
Western Blotting			
SDS-PAGE Separation	Generating publication-quality western blots requires not just good technique but a thorough understanding of how each step in the workflow can affect data quality and reproducibility. This webinar focuses on decoding each step of the process.	▪ Assembly of the blotting sandwich and electroblotting are shown along with the steps for protein detection using a colorimetric assay	
Immunoprecipitation (IP) Procedure Using SureBeads Magnetic Beads and TidyBlot WB Reagent	This animated workflow illustrates the different steps in an immunoprecipitation (IP) procedure using SureBeads Magnetic Beads, and highlights how you can use TidyBlot to mitigate obstruction from IgG heavy and light chains and generate clean blots.		
Antibodies Designed Just for You	See inside Bio-Rad's custom antibody facility and learn from antibody experts how your requirements for specialized custom antibodies can become a reality through the use of HuCAL® technology.		

Podcasts

Bio-Rad has a podcast channel dedicated to antibody related topics.
https://bioradantibodies.podbean.com

Blogs

All our blogs can be found here:
https://www.bio-rad-antibodies.com/blog

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