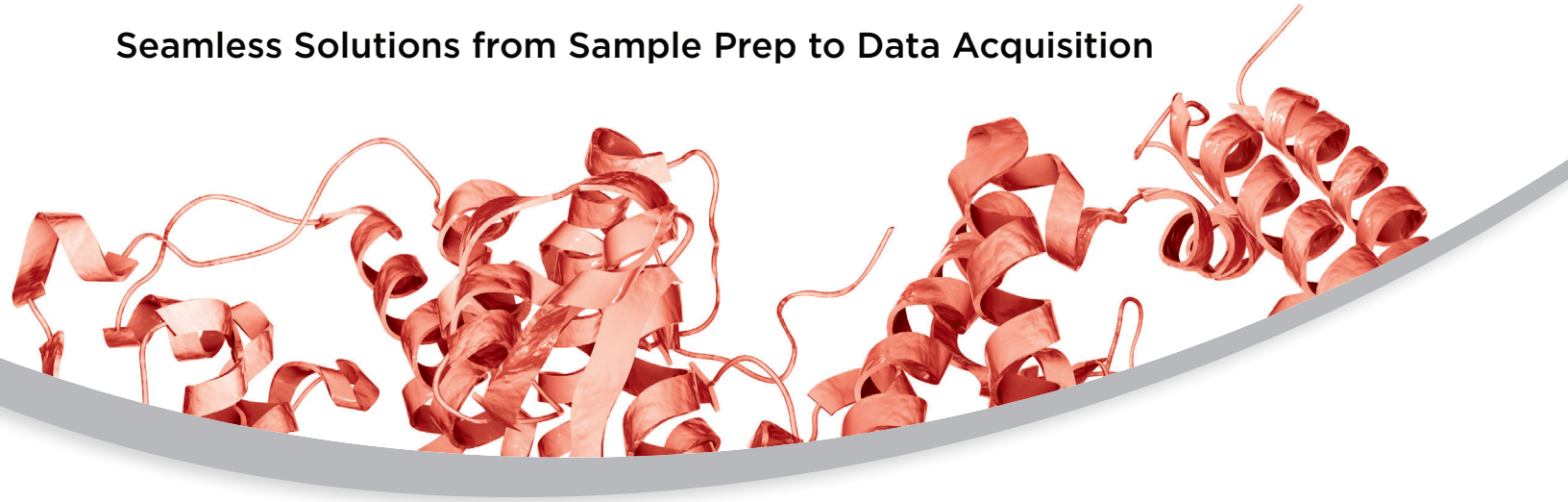
Untangle the Complexities of Proteomics with Lab Automation

Seamless Solutions from Sample Prep to Data Acquisition



At Beckman Coulter Life Sciences, we have been at the forefront of supporting proteomics studies since 1986, when we introduced the trailblazing Biomek 1000 instrument.

Our extensive experience and expertise in automating expression, functional, and structural proteomics processes—including isolation and integration with analytical devices—enables us to provide robust automation solutions.

With a focus on data quality, integrity and consistency, our automation solutions are accelerating answers in labs around the world. By bringing these solutions into your lab, you can empower your AI and machine learning models with high-quality, reproducible data and streamline the study of proteomes in disease and therapeutic responses.

Our lab automation solutions offer the following capabilities:

Reproducibility

Consistent sample preparation across triplicate wells with a CV of less than 2%

Standard curve linearity (R2) of over 99% during serial dilution in proteomic workflow analytical assays

Throughput

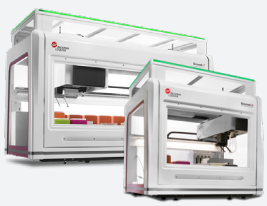
Large deck capacity and on-deck device utilization

Selective tip feature of the multichannel head providing flexibility for both low- and high-throughput applications

Scalable and Modular

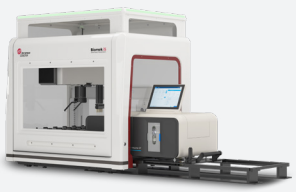
Our experts have integrated 300+ different third-party devices from over 60 manufacturers to transform our liquid handlers into advanced lab automation solutions.

One-Stop-Shop for your Proteomics Research Needs



Biomek Automated Workstations

Echo Acoustic Liquid Handlers



Integrated Workstations

Automated Liquid Handling Software

Tips

Proteome Mining through Data Reproducibility

Biomek Automated Workstations and Echo Acoustic Liquid Handlers offer automated proteomic sample preparation, resulting in the generation of high-quality and reproducible data.

This allows for unlocking the potential of AI and machine learning approaches to proteome mining.

Protein Expression Profiling

Protein sample prep and quantification assays can be easily automated on Biomek Automated Workstations and Echo Acoustic Liquid Handlers.

Echo-enabled cell-free protein expression (CFPE) improves efficiency for expression screening, labeling, NMR, crystallization, mutagenesis, and screening enzymes.

Functional Proteomics

The Biomek i7 Automated Workstation increases assay throughputs for studying the changes in signaling events and gene expression profiles on a larger scale.

Automated methods on the Biomek i7 simplify and accelerate the analysis process, providing deeper insights into cellular function.

Seamless Solutions from Sample Prep to Data Acquisition

Protein PTM Analysis

Our lab automation solutions streamline and automate peptide mapping, enabling the accurate determination of both peptide sequences and their associated PTMs.

Structural Proteomics

Biomek Automated Workstations equipped with fixed tips, metal/caustic chemical resistant reservoirs, cooling ALPs and secondary containment can support NMR sample prep needs.

The Echo Acoustic Liquid Handler can enable you to perform complex crystallography set-up in nanoliter droplets.

Protein – Protein Interaction Studies

Biomek Automated Workstations streamline ELISA assays to deliver highly reliable results with increased throughput and reduced protocol run time. This enables you to maximize productivity and achieve greater walk-away time.

Biomek Automated Workstations streamline the experimental workflow, enhancing efficiency and reproducibility in protein-protein interaction studies.

"Our scientific work covers a wide range of applications, including the detection of vitamins, the determination of drugs and drug residues, the investigation of biomarkers, and innovative methods of material research and development. The Biomek i7 gives us the highest possible flexibility for automating the respective workflows and integrating our own, customer-specific automation devices and systems to realize a variety of sub-processes beyond classic liquid transfers. This makes high-throughput processes possible even for applications for which automation was previously hardly possible."

Prof. Dr.-Ing. habil. Kerstin Thurow,
Executive Director of Center for Life Science Automation,
University of Rostock, Germany

BECKMAN COULTER Life Sciences

Product not for use in diagnostic procedures. Applicaitons described are for demonstration only and are not validated by Beckman Coulter.

© 2024 Beckman Coulter, Inc. All rights reserved. Beckman Coulter, the stylized logo, and the Beckman Coulter product and service marks mentioned herein are trademarks or registered trademarks of Beckman Coulter, Inc. in the United States and other countries. ECHO is a trademark or registered trademark of Labcyte Inc. in the United States and other countries. Labcyte is a Beckman Coulter company.

For Beckman Coulter's worldwide office locations and phone numbers, please visit Contact Us at beckman.com
2024-GBL-EN-104806-V1

danaher