

Customer case study

Rachel Rowlinson

Specialist in Protein Mass Spectrometry, Peak Proteins



Project focus

Peak Proteins focuses on the manufacture of proteins as tools to support small molecule and biologics drug discovery.

The challenges

The expression and purification of proteins often require engineering, analysis, and troubleshooting to obtain a correctly folded protein with the desired therapeutic activity. Protein expression can be difficult, as the activity varies, which means much of the organization's work is troubleshooting.

The solution

Peak Proteins acquired the SCIEX X500B QTOF System with the ExionLC™ System on the front end of the system. The organization uses a simple formic-acid-based buffer system to confirm protein identity. They also use the SCIEX Bio Tool Kit software routinely for intact mass analysis. In addition, Peak Proteins routinely use BioPharmaView software, which is key to their data analysis, allowing them to search all of the peptide mapping data against that bespoke sequence.

The outcome

The simplicity, speed, and reliability of SCIEX Software has given Peak Proteins confidence in its results. Using the X500B QTOF System and the ExionLC™ System together with the BioPharmaView Software and the Bio Tool Kit Software, the organization can run peptide mapping analysis around 20 to 30 times in a week with the capability to run more. The X500B QTOF System is a compact instrument that is ideal for the organization's lab space, and it is "by far the most reliable and intuitive instrument" the team has used, according to Rowlinson. It is also well suited for quality control, as it switches seamlessly between different analyses, such as intact mass analysis and peptide mapping analysis.

“There’s no end to what you can do with both the BioPharmaView Software and the Bio Tool Kit Software, which dovetail perfectly with the reliability of the X500B instrument.”

Applications

- Drug discovery

SCIEX products

- X500B QTOF System
- ExionLC™ System
- Bio Tool Kit Software
- BioPharmaView Software