SCIEX
The Power of Precision

Customer case study

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Project goal

Characterize antibodies and antibody drug conjugates (ADCs) in terms of amino acid sequence, drug-to-antibody ratio (DAR) and post-translational modifications.

The Challenges

- Establishing a native mass spectrometry method that maintains the quaternary structure of interchain cysteine conjugated ADCs.
- Establishing a label-free method for the quantification of serum incubated ADCs.

The solution

- Top-down approach for quick confirmation of proteins, identification of common post-translational modifications and determination of the DAR.
- Bottom-up mass spectrometry for in-depth analysis of the amino acid sequence and site localization of modifications.
- BioPharmaView™ Software automatically calculates the DAR and creates a report, which can be sent to customers without further manual changes.

The outcome

- Generic method for routine analysis of the DAR, regardless of antibody, linker and payload.
- Quick confirmation of the protein identity of small-scale expressions.

"The 6600+ system provides important data for the development of new biological drugs."

Goals

Achieve in-depth characterization of antibodies and ADCs

SCIEX products

- TripleTOF® 6600+ LC-MS/MS System
- X500R QTOF System

RUO-MKT-18-11588-A