Biolin Scientific
[Progress Together]

Assess Stability and Material Compatibility of Biopharmaceuticals

QSense® offers a fast way to assess biopharmaceutical stability and material compatibility. By analyzing adsorption of biologics and excipients onto relevant surface materials used in manufacturing, storage, and administration, you can proactively identify potential incompatibilities or stability issues and ways to mitigate them.

What can you measure?

The QSense QCM-D method enables evaluation of surface adsorption and desorption processes, as well as changes in the structure of adsorbed layers, that may occur throughout the lifecycle of the pharmaceutical drug.

- How much antibody adsorbs to different surface materials?
- How are the molecules arranged at the surface?
- What surfaces may cause incompatibility issues?
- How does an excipient impact antibody adsorption?
- How do changes in concentration, pH, temperature, surface material, or surfactant type affect the adsorbed amount?

Reduce the risk of late failure

- **Analyze the biopharmaceutical interaction with relevant surface material.** Quickly assess the effect of materials used in manufacturing, storage and administration on the full formulation early on in development.
- **Proactive incompatibility detection.** Quickly measure the adsorbed amount of the formulation candidate on relevant surfaces and identify ways to mitigate incompatibilities.
- **Real-time monitoring of antibody and excipient adsorption.** Understand the surfactant's action mechanism and potential as stabilizer in the relevant context.

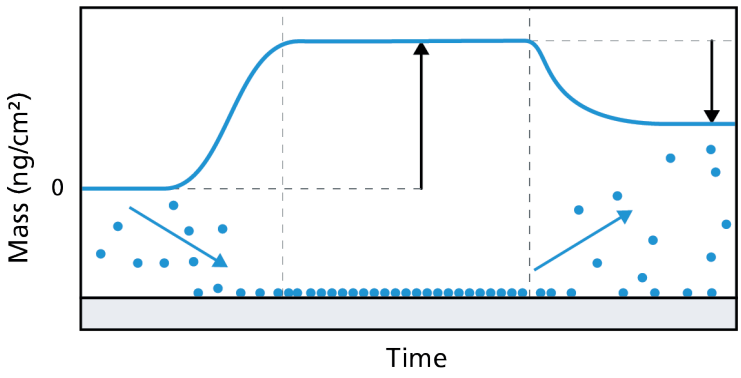

Figure A: QSense allows you to follow the full adsorption and desorption process.

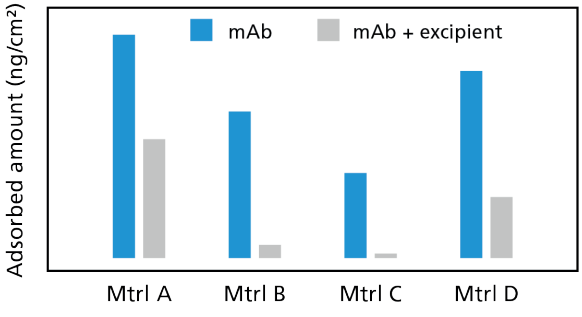

Figure B: QSense allows you to compare the adsorption on different surface materials as well as the effect of different formulations and concentrations.

QSense

A Complete Solution for Protein Interaction Analysis

QSense® is the world-leading, premium solution for tracking of protein-surface interactions using the QCM-D method. It enables a fundamental understanding of protein adsorption processes, an early indication of real-life outcome and the ability to optimize products and processes for authentic conditions. With high reliability, productivity and ease of use along the way.

QSense Omni

The QSense Omni instrument is designed for easy evaluation of surface-interactions with fast and reproducible results using small sample volumes. So that you can work efficiently and base your decisions on reliable results from highly controlled measurements.

- Intuitive and automated lab bench Instrument
- Time-resolved data on protein interaction
- Down to 90 µl required sample volume
- Results in a few hours
- Pre-programmable standard scripts

About us

At Biolin Scientific we are committed to empower professionals in Surface and Interface science and engineering to reach outstanding results faster and easier. Our instruments and sensors are tailored for advanced analysis of thin film properties and surface and interface phenomena at the nanoscale. Trusted by top universities and industrial labs worldwide, our premium solutions help solve complex challenges and drive progress in scientific research and product development. We firmly believe that brilliant minds deserve state-of-the-art instruments and expert support. Let's progress together.

Sensors coated with relevant surface materials

QSense sensors represent several relevant target surfaces used in production, storage and administration of antibodies and other biological drugs – from metals and glass material to polymers, for example:

- SS2343 Stainless steel (similar to US S 316)
- Borosilicate glass
- PTFE (Amorphous polymer)

Our additional range of customized sensors includes bio-grade polymers, e.g. PVC, PC, PES, PMMA, PP, PE, COP, COC as well as PDMS and different variations of steels and bio-grade alloys.

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Learn more about using QSense for biopharmaceutical interaction analysis.

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