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Sartorius launches the Octet® R8e System: real-time, label-free biomolecular interaction analysis with unprecedented sensitivity and efficiency

- Superior sensitivity broadens the dynamic range and improves detection limits, enabling accurate measurement of low molecular weight and low-abundance analytes
- Compatibility with 384-well plate increases throughput and enables sample volumes as small as 40 µL, reducing cost of analysis per sample
- Advanced evaporation control in the 96-well plate format preserves sample integrity, allowing for extended runtimes of up to 16 hours

The life science group Sartorius launches the new Octet® R8e biolayer interferometry (BLI) system, providing researchers with its most advanced detection capabilities to date for real-time, high-throughput analysis of protein-protein, protein-small molecule, and other biomolecular interactions. Expanding the industry-leading fluidic-free Octet® BLI portfolio, the R8e is designed for applications requiring higher sensitivity, flexible assay design, and longer run times.

Leveraging Sartorius' proprietary BLI technology for fast, real-time, and label-free kinetic characterization of binding interactions, the Octet® R8e provides next-level sensitivity for accurate data generation at the lowest detection limits, expanding analyte range to low-molecular weight (> 100 Da) and low-abundance (>10 pM) analytes. Compatibility with 96- and 384-well plate formats offer additional flexibility in assay design, allowing customization to each study's unique scale, complexity, and cost requirements.

"Octet® R8e is our most advanced BLI system yet, designed to future-proof research by enhancing the role of BLI in discovery and development. It delivers the performance and reliability that today's scientists require to address new targets, emerging modalities, and increasingly complex programs," says Nilshad Salim, Product Manager of Octet® Systems at Sartorius. "The combination of high sensitivity and the ability to reduce sample size to 40 µL with our custom 384-well microplates gives researchers maximum freedom and significant cost efficiencies, without sacrificing data quality."

Sample integrity is a common challenge in BLI assays when long-term kinetic measurements are required to observe slow binding interactions or dissociations. A new evaporation cover created for the Octet® R8e system minimizes sample evaporation from 96-well microplates, maintaining sample concentrations for up to 16 hours. This ensures accuracy over extended assay durations, allowing for greater data collection capabilities without manual intervention.

“The advanced evaporation protection is a game changer, supported by data showing excellent reproducibility between replicates over 16-hour experiments. It is equally valuable for shorter runs, where minimizing data variations is critical,” adds Salim. “Together with its best-in-class performance, the R8e provides scientists with a powerful and streamlined alternative to SPR-based platforms, backed by a brand trusted worldwide as the genuine BLI technology.”

Octet® BLI systems have a large global install-base in regulated environments across pharma, biotech, and CRO organizations, with successful use in numerous investigational new drug applications. Empowering scientists with quality data, flexibility, and a user-friendly design, the Octet® R8e system is designed to accelerate biopharmaceutical research at every stage—from drug discovery to development, bioprocessing, and quality control—while equipping labs for future applications.

More information about Octet® R8e:

<https://www.sartorius.com/octet-r8e>

A profile of Sartorius

Sartorius is a leading international partner to life sciences research and the biopharmaceutical industry. With innovative laboratory instruments and consumables, the Group’s Lab Products & Services Division focuses on laboratories performing research and quality control at pharmaceutical and biopharmaceutical companies as well as academic research institutes. The Bioprocess Solutions Division, with its broad product portfolio focusing on single-use solutions, helps customers manufacture biotech medications, vaccines, and cell and gene therapies more safely, rapidly, and sustainably. Based in Göttingen, Germany, the company has a strong global reach with around 60 production and sales sites worldwide. Sartorius regularly expands its portfolio through the acquisition of complementary technologies. In 2024, the company generated sales revenue of around 3.4 billion euros. More than 13,500 employees work for customers around the globe.

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