Octet® High Precision Streptavidin (SAX) Biosensors

For High Precision Quantitation and Kinetic Characterization

Key Features

- Rapid and stable capture of biotinylated molecules
- High precision quantitation and kinetic analyses
- QC-tested to meet precision-controlled CV specification of 4%

Overview

Streptavidin-coated surfaces are widely used as a simple and straightforward method of molecular immobilization. Utilized with Bio-Layer Interferometry (BLI), Streptavidin Biosensors enable quick and easy modification and customization of the biosensor with any biotin-tagged molecule for quantitative and kinetic measurements. The Dip and Read High Precision Streptavidin Biosensor (SAX) was specifically developed and qualified for applications in downstream drug discovery and regulated environments that have more stringent assay precision requirements. SAX Biosensors are QC-tested at Sartorius to meet our precision-controlled coefficient of variation (CV) specification of < 4%.

High Precision Assays

Characterization of protein interactions provides valuable information in every stage of a drug candidate's development and processing. The High Precision Streptavidin Biosensor (SAX) enables researchers to perform direct immobilization of biotin-labeled proteins for both kinetics characterization and quantitation measurements on Octet® systems. Intra-assay precision is significantly improved. Researchers can now develop and perform custom quantitation or stringent kinetic assays with high confidence in the reliability and consistency of results.

Range of Applications

The High Precision Streptavidin Biosensor offers researchers unparalleled ease of use for applications such as:
- Highly precise titer determination
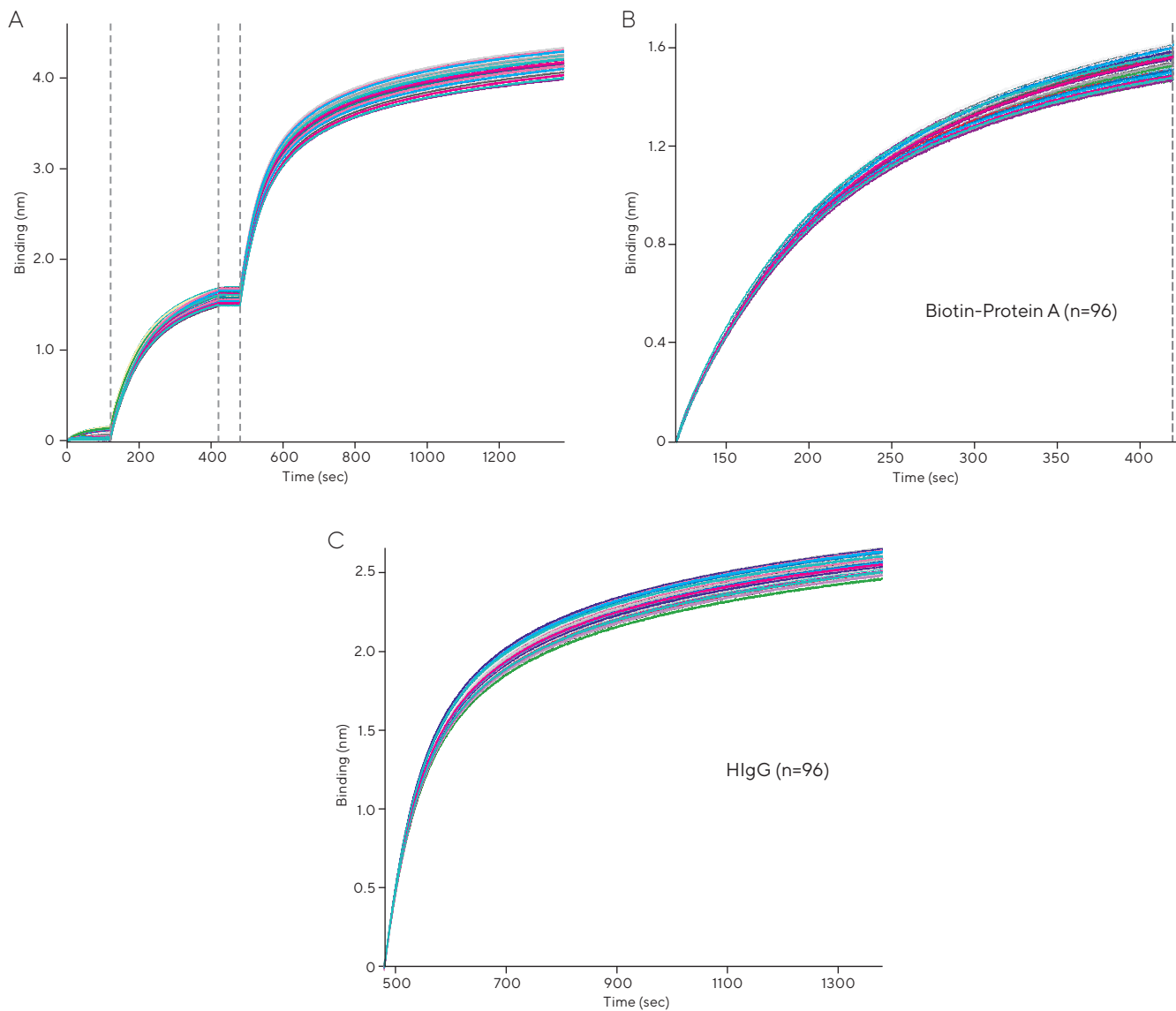- Activity assays in manufacturing
- Product release QC

Figure 1: Data showing an experiment performed with High Precision Streptavidin Biosensors (SAX), n=96. (A) Raw data showing the consecutive steps in the experiment where the 96 SAX Biosensors are dipped into buffer for a baseline, followed by loading of the biotinylated ligand (biotinylated Protein A), buffer again for a second baseline step, and binding of the analyte (human IgG) to the surface-immobilized ligand (biotinylated Protein A). (B) Data showing very consistent loading of biotinylated Protein A onto all 96 SAX Biosensors. (C) Data showing very consistent binding of human IgG onto all 96 biotinylated Protein A-coated SAX Biosensors.
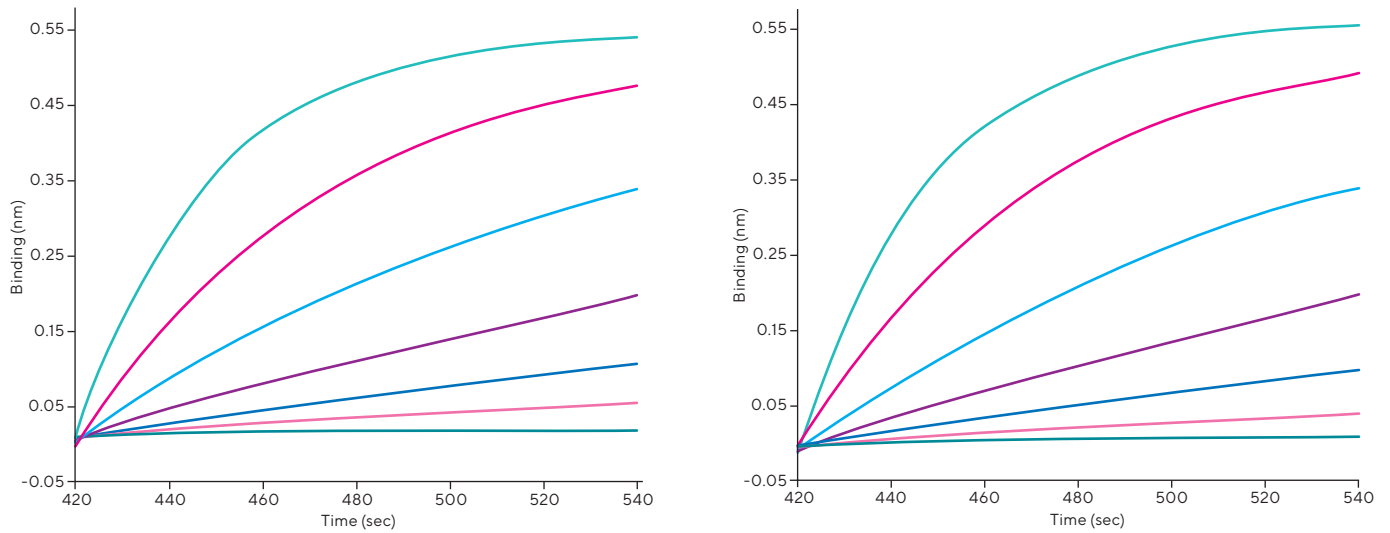
Figure 2: Binding experiment of prostate-specific antigen (PSA) showing high precision data with High Precision (SAX) Streptavidin Biosensors. Biotinylated anti-PSA was loaded onto four different sets of High Precision Streptavidin Biosensors, and the subsequent binding of PSA was measured on each set of anti-PSA coated biosensors, showing data consistency and precision.

Table 1: Biotin-Protein A and HIgG precision % CV (n=96).

n=96	Biotin-Protein A (1 µg/mL)	HIgG (6 µg/mL)
Mean	1.53	2.58
SD	0.04	0.05
% CV	2.6%	1.8%

Ordering Information

Part No.	UOM	Description
18-5117	Tray	One tray of 96 Octet® High Precision Streptavidin (SAX) Biosensors
18-5118	Pack	Five trays of 96 Octet® High Precision Streptavidin (SAX) Biosensors
18-5119	Case	Twenty trays of 96 Octet® High Precision Streptavidin (SAX) Biosensors