

Octet® 96FW Microplate

Reduced Background Noise
and Excellent Reproducibility
for Octet® BLI Assays



Key Features

- 96-well, flat-bottom, black polypropylene microplates
- Optimized for use on the Octet® BLI platform
- Provide reliable and consistent assay results
- Standard SBS format

The Octet® 96FW Microplates are black, polypropylene, 96-well flat-bottom plates designed for label-free biomolecular interaction analysis on the Octet® BLI platform. These microplates offer reduced background noise and excellent reproducibility, enhancing assay sensitivity and consistency. This makes them an ideal alternative to other Octet-recommended 96-well plates for both kinetics and quantitation applications.

Reliable and Consistent Assay Results

Comparative evaluations on the Octet® BLI platform show that the Octet® 96FW Microplates produce results consistent with those generated using reference 96-well microplates from other Octet-recommended vendors. These microplates demonstrate the same low 1-hour baseline drift following Biotin-Protein A loading onto Octet® SA Biosensors (Figure 1). They also show similar dynamic range, recovery, and precision in quantitation assays (Figure 2 and Table 1). In kinetic assays, they provide consistent association/dissociation profiles with low background noise, ensuring reliable and consistent assay performance (Figure 3 and Table 2).

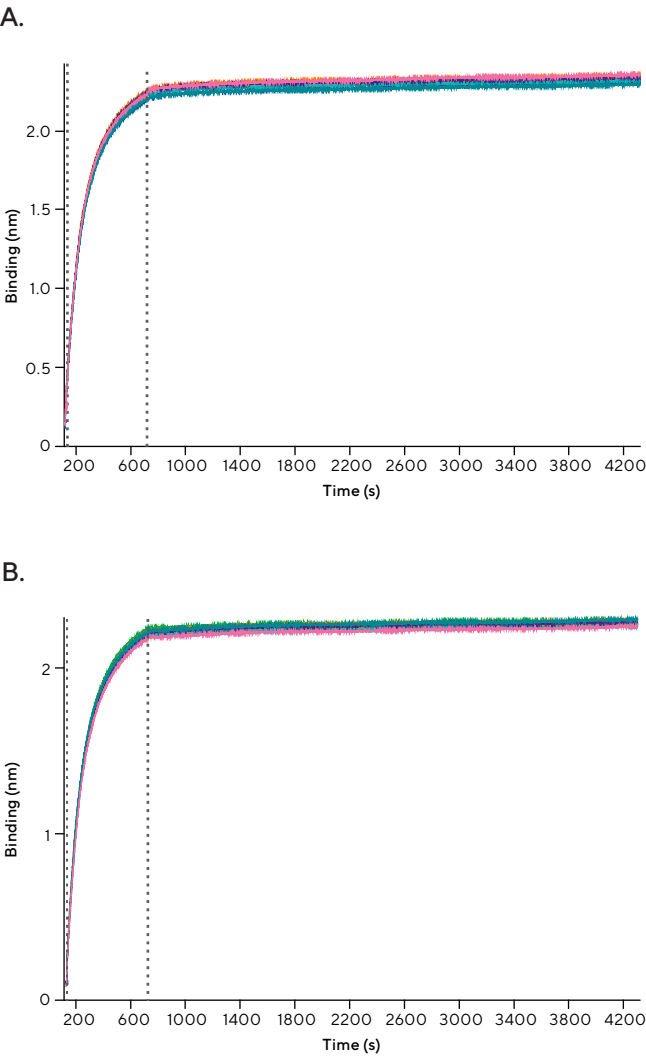


Figure 1. Baseline drift measured over 1 hr on the Octet® R8 instrument after loading the Biotin-Protein A ligand onto Octet® SA Biosensors. (A) Baseline drift measured using the Octet® 96FW Microplates. (B) Baseline drift measured using other Octet-recommended 96-well microplates.

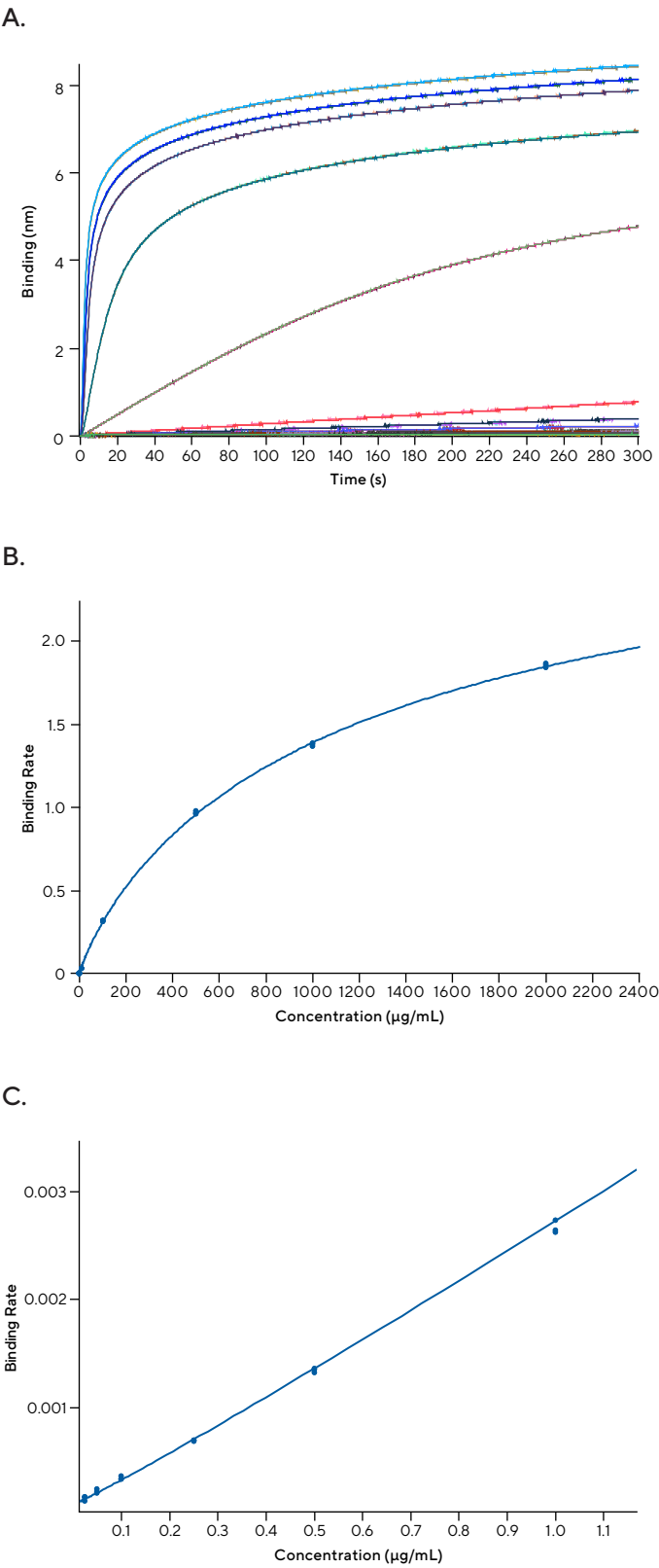


Figure 2. Quantitation of hlgG using the Octet® ProA Biosensors and the Octet® 96FW Microplates on the Octet® RH96 instrument. (A) hlgG dose response binding curves for concentrations in the range of 0.025–2000 µg/mL. (B) hlgG standard calibration curve for concentrations in the range of 1.0–2000 µg/mL. (C) hlgG standard calibration curve for the concentrations in the range 0.025–1.0 µg/mL (enlarged section of the standard curve shown).

Known Concentrations (µg/mL)	Calculated Concentrations (µg/mL)		%CV (n=6)	
	Octet® 96FW Microplates	Vendor G Microplates	Octet® 96FW Microplates	Vendor G Microplates
2000	2000.00	2000.00	1%	4%
1000	1002.00	1010.56	1%	5%
500	501.00	504.43	1%	4%
100	100.10	101.86	1%	4%
10	10.00	9.99	0%	3%
1	1.00	1.00	1%	2%
0.5	0.50	0.50	1%	2%
0.25	0.24	0.24	1%	1%
0.1	0.11	0.09	1%	1%
0.05	0.053	0.045	2%	4%
0.025	0.025	0.028	4%	3%

Table 1. Calculated concentrations and %CV show a similar dynamic range and precision when using the Octet® 96FW Microplate compared to the Octet-recommended 96-well microplate from Vendor G.

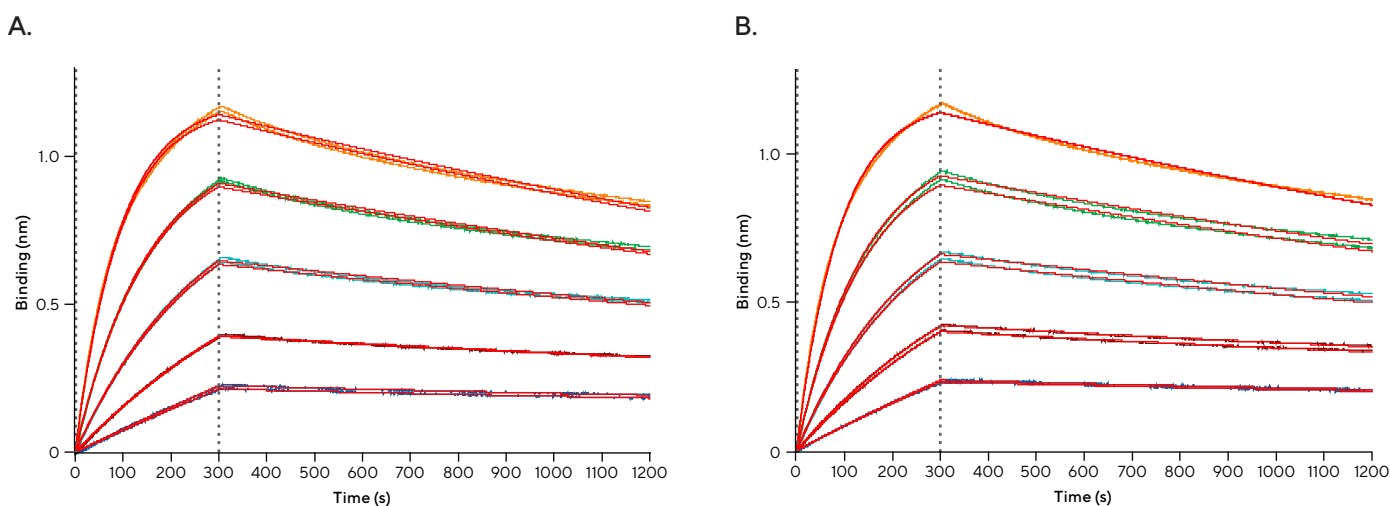


Figure 3. Kinetics analysis (association and dissociation binding curves) of the interaction between anti-Her2 and recombinant human Her2 protein interaction using Octet® AHC2 biosensors on the Octet® R8 instrument. (A) Kinetics analysis using the Octet® 96FW Microplates. (B) Kinetics analysis using the other Octet-recommended 96-well microplates.

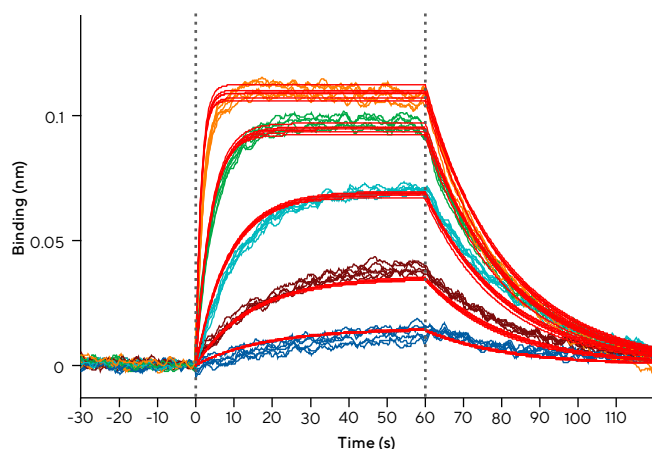
	Octet® 96FW Microplate	Vendor G Microplate
K_D (M)	1.22E-09	1.17E-09
k_a (1/Ms)	2.88E05	3.06E05
k_d (1/s)	2.70E-04	2.98E-04

Table 2. Comparison of binding kinetics of anti-Her2 and recombinant human Her2 protein interaction using Octet® AHC2 Biosensors and the Octet® 96FW Microplate vs. another Octet-recommended 96-well microplate.

Excellent Reproducibility for Small Molecule Analysis

In small molecule kinetic assays, Octet® 96FW Microplates exhibit low %CV values, confirming excellent reproducibility and assay consistency (Figure 4 and Table 3). Their optimized design supports reliable kinetic measurements for peptide, small molecule, and fragment analysis applications.

A.



B.

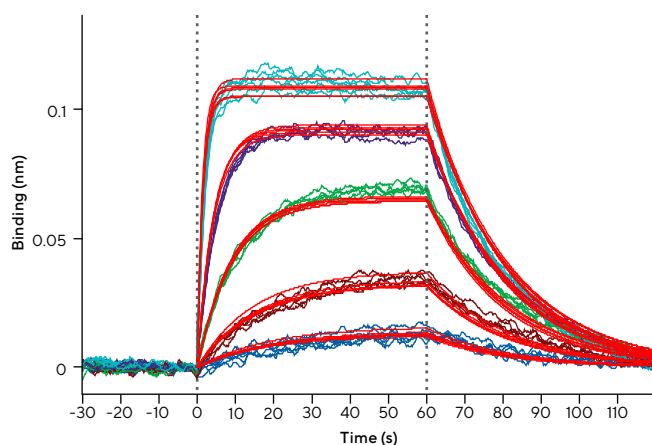


Figure 4. Kinetics analysis (association and dissociation binding curves) of the interaction between Furosemide and Carbonic Anhydrase II protein using Octet® SSA Biosensors on the Octet® R8 instrument. (A) Kinetics analysis using the Octet® 96FW Microplate. (B) Kinetics analysis using another Octet-recommended 96-well microplate.

	Octet® 96FW Microplate	Vendor G Microplate
K_D (M)	6.99E-07	7.81E-07
k_a (1/Ms)	6.84E04	6.59E04
k_d (1/s)	6.78E-02	5.06E-02

Table 3. Comparison of binding kinetics of the interaction between Furosemide and Carbonic Anhydrase II protein using Octet® SSA Biosensors and the Octet® 96FW Microplate vs. another Octet-recommended 96-well microplate.

Instructions for Use

The Octet® 96FW Microplates are fully compatible with Octet® BLI instruments and can be used in the same way as other recommended 96-well microplates. General usage guidelines are provided below.

- Recommended sample volume: 200 µL.
- When pipetting into the wells, avoid trapping bubbles of air in them. Bubbles in the well can result in spikes in the assay data. An effective method for removing any bubbles that occur is to centrifuge the filled plate in a swinging plate rotor at 1000 rpm for 2 minutes prior to the assay.
- Set the “Delay experiment start” setting in the Octet® BLI Discovery Software to a minimum of 10 minutes (600 seconds) to allow the plate to equilibrate inside the instrument change to prior to starting the run.
- Check the “Shake sample plate while waiting” option in the Octet® BLI Discovery Software. Shaking the plate during equilibration time helps to eliminate trapped air.
- For extended assay runs on the Octet® R8e, RH16 and RH96 instruments, it is recommended to use the Octet® AE microplate evaporation cover (Part No. 18-5152) to minimize sample evaporation.

Octet® 96FW Microplates Specifications*

Ordering Information

Specifications	Details
Applications	Kinetics and quantitation applications on the Octet® BLI platform
Instrument compatibility	Octet® R2, R4, R8, R8e, RH16 and RH96 systems
Material	Polypropylene
Color	Black
Dimensions	SBS standard
Recommended sample volume	200 µL
Sterilization	No

*All specifications are subject to change without notice.

Part No.	UOM	Description
18-5172	Pack	Octet® 96FW Microplates, black, flat bottom, polypropylene, 10 per pack.
18-5173	Case	Octet® 96FW Microplates, black, flat bottom, polypropylene, 100 per case.
18-5152	Pack	Octet® AE microplate evaporation cover, 10 per pack.

Germany

Sartorius Lab Instruments GmbH & Co. KG
Otto-Brenner-Strasse 20
37079 Goettingen
Phone +49 551 308 0

USA

Sartorius Corporation
3874 Research Park Drive
Ann Arbor, MI 48108
Phone +1 734 769 1600



For further information, visit

www.sartorius.com/octet-support