PRODUCT NOTE

Gator® BLI 96-Flat Plate, Polypropylene

INTRODUCTION

The Gator® BLI 96-Flat Plate is a black polypropylene 96-well flat-bottom plate that meets the Standard Society for Biomolecular Screening (SBS) specifications. It is designed for use in Bio-Layer Interferometry (BLI) experiments that measures biomolecular interactions of proteins, peptides, small molecules, and viruses. The BLI 96-Flat plate can be utilized on Gator® instruments in an array of applications, as well as other BLI platforms that accommodate a 96-well microplate format.

GATOR® BLI 96-FLAT PLATE PERFORMANCE SUMMARY

Equivalent performance to the Greiner 96-well plate (Greiner Bio-One, Cat No: 655209) for both quantitation and kinetics assays. Performance characteristics verified include:

- Dynamic range
- Binding rate
- Precision
- Accuracy

GATOR® BLI 96-FLAT PLATE VERSUS GREINER 96-WELL PLATE

The BLI 96-Flat plate is designed for a wide range of applications compatible with Gator® BLI instruments. Experiments are conducted using optical sensors "dipped" into microwells containing biological samples, and the interference pattern of white light reflected from a layer of molecules immobilized on the sensor tip in solution is measured. When assessing these biomolecular interactions, a non-binding surface for the sample plate is critical, and therefore polypropylene is used as the optimal material for the BLI 96-Flat plate. The assay performance (i.e., titer dynamic range, binding rate, precision, and accuracy) for BLI applications using the BLI 96-Flat plate is equivalent to that of the Greiner 96-well flat-bottom microplate.

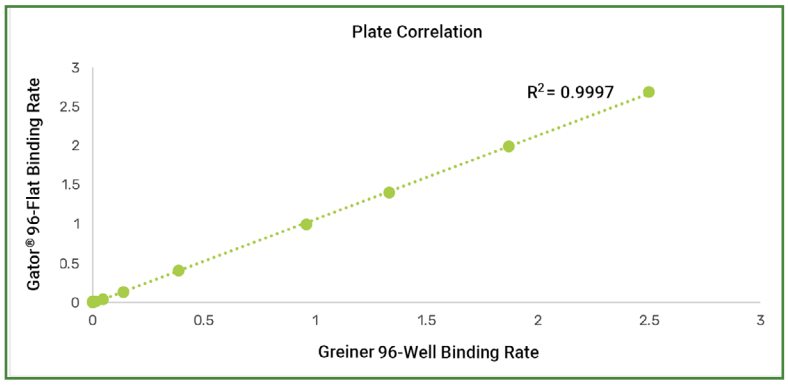

Figure 1. Correlation curve across a dynamic range of 0.4 - 2000 µg/mL using human IgG and Gator® ProA biosensors. The two types of plates performed similarly in this quantitation assay, with a near perfect linear correlation.

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Concentration (µg/mL)	Binding Rate		% CV	
	BLI 96-Flat Plate	Greiner 96-Well Plate	BLI 96-Flat Plate	Greiner 96-Well Plate
2000	2.6889	2.5076	0.4	1.8
1000	2.0003	1.8781	0.7	1.1
500	1.3961	1.3375	0.7	0.7
300	0.9863	0.9600	0.7	0.3
100	0.4017	0.3856	1.7	0.4
30	0.1287	0.1380	1.2	0.7
10	0.0411	0.0431	2.4	2.6
3	0.0119	0.0129	5.1	4.3
1	0.0041	0.0042	5.4	6.6
0.4	0.0013	0.0013	6.0	5.3

Table 1. Measurements of the binding rate and percent (%) coefficient of variation (CV) show a strong correlation between the performance of the Gator® BLI 96-Flat plate and the Greiner 96-well microplate in a quantitation assay using human IgG and Gator® ProA biosensors.

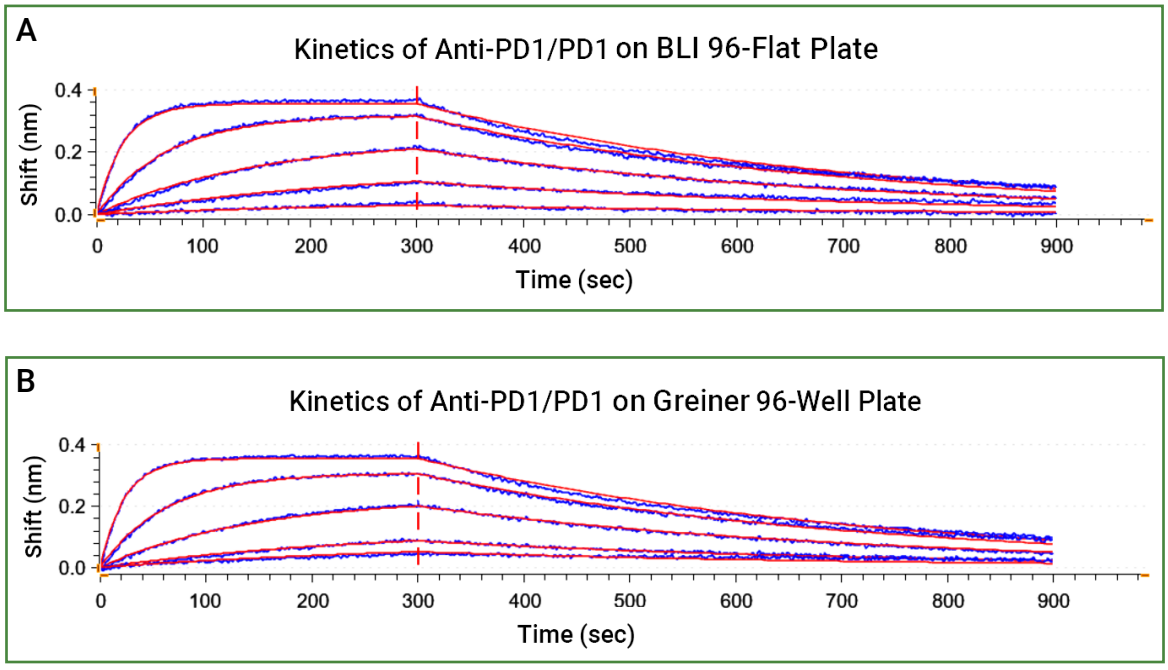

Figure 2. Kinetics assays of anti-PD-1 and PD-1 using Gator® anti-human IgG Fc Gen II (HFCII) biosensors and Gator® K (kinetics) Buffer (1000 rpm at 30°C) with **(A)** the Gator® BLI 96-Flat plate and **(B)** the Greiner 96-well microplate. Both microplates display nearly identical kinetics sensograms.

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BLI PLATFORM COMPATIBILITY

The BLI 96-Flat plate is designed for use in a variety of BLI applications. It can be used for applications compatible with BLI platforms that accommodate a Greiner 96-well flat-bottom microplate format.

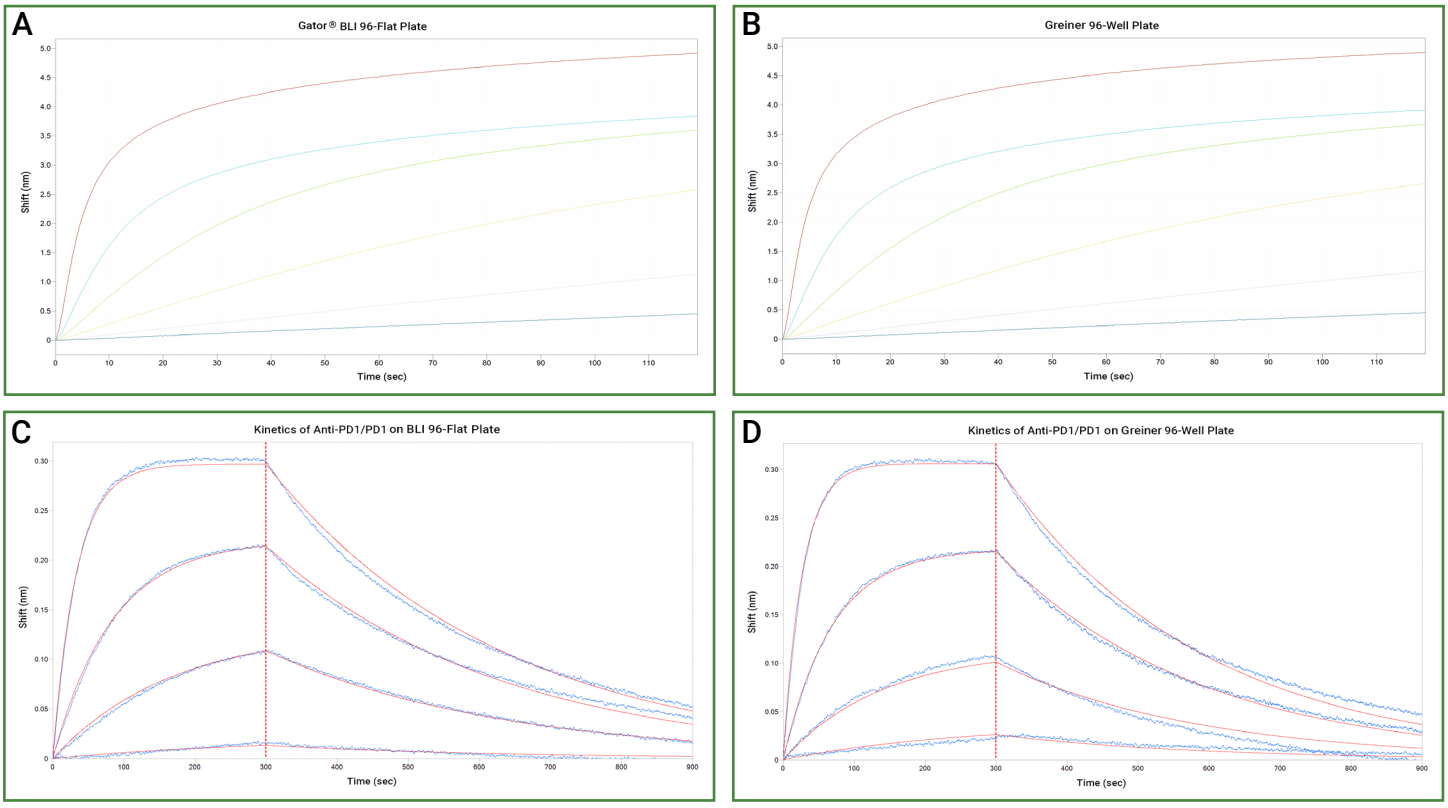

Figure 3. A performance comparison of the Gator® BLI 96-Flat plate and the Greiner 96-well microplate in a quantitation (Q) and kinetics (K) assay on an alternative BLI platform. Both **(A)** the BLI 96-Flat plate **(B)** the Greiner 96-well microplate result in sensograms with the dynamic range of 2.7 - 666 µg/mL of human IgG and ProA biosensors in a Q assay. **(C)** The sensorgrams of anti-PD-1 and PD-1 with anti-human Fc biosensors in a K assay using **(C)** the BLI 96-Flat plate and **(D)** the Greiner 96-well microplate.

Anti-PD-1/PD-1	BLI 96-Flat Plate	Greiner 96-Well Plate
k_{on} (1/Ms)	2.68E+005	3.32E+005
k_{off} (1/s)	3.04E-003	3.55E-003
K_D (M)	1.14E-008	1.07E-008

Table 2. Kinetics data of anti-PD-1 and PD-1 using anti-human Fc biosensors on an alternative BLI platform; results indicate that the BLI 96-Flat plate is highly comparable to the Greiner 96-well microplate.

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SPECIFICATION

Type of Analysis	Yes/No Binding, Quantitation, Kinetics, Affinity, Off-Rate Ranking, and Epitope Binning
Material	Polypropylene
Color	Black
Dimensions	SBS standard
Temperature Range	5°C - 60°C
Max Volume	220 µL
Min Volume	180 µL
Sterilization	No
Platform Compatibility	Gator® Prime, Gator® Plus, and other BLI Platforms that accommodate a 96-well microplate format

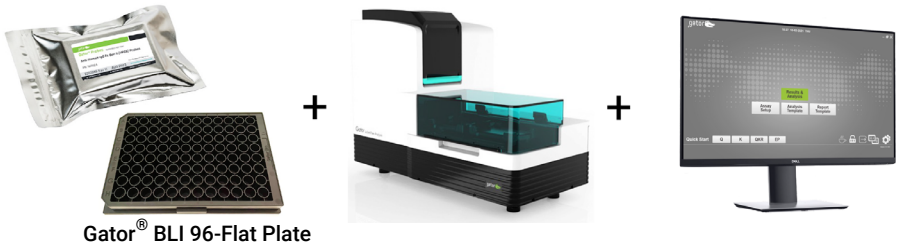
*All specifications are subject to change without notice.

INSTRUCTIONS FOR USE OF THE BLI 96-FLAT PLATE

- Maximum sample volume is 220 µL.
- Minimum sample volume is 180 µL.
- Samples and buffers should be equilibrated to room temperature before the start of the assay.
- New biosensors need to be hydrated in the Max plate (Gator Bio, Part No: 130062) for at least 10 minutes before use.
- Avoid bubbles from pipetting when adding buffers and samples to the Max plate and the BLI 96-Flat plat

GATOR BIO TOTAL SOLUTION

Consumables | Instrumentation | Software



Gator® BLI 96-Flat Plate

ORDERING INFORMATION

Part No: 130150 - Gator® BLI 96-Flat Plate, Polypropylene, 1 Pack (10 Plates)
Part No: 130260 - Gator® BLI 96-Flat Plate, Polypropylene, 1 Case (100 Plates)

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