

Rapid Hybridoma Screening with Next Gen BLI Based Highly Sensitive Anti- Mouse Fc Biosensor

Biolayer interferometry (BLI) has been widely accepted for antibody screening, but one of the most widely used biosensors in mouse IgG quantitation, anti-mouse Fc, has always remained a step behind in performance standards. As the therapeutic antibody sector grows, the capacity and cost-per-assay demands will continue to exceed what traditional methods can produce. Gator Bio's next generation BLI systems with novel anti-mouse Fc biosensors surpass traditional BLI's limitations with an expanded dynamic range for faster antibody screening. This next gen BLI based high sensitivity assay improves workflow while producing fast results with significant cost savings.

Streamlined workflow

Next gen BLI with anti-mouse Fc biosensors can detect antibody concentrations from 0.02-2,000 µg/mL. This wide dynamic range enables researchers to rapidly screen hybridoma samples without the dilution steps necessary for traditional BLI and ELISA. This workflow improvement makes sample preparation fast and easy. There is no compromise of data quality across the broad dynamic range.

Known concentration (µg/mL)	Avg. calculated concentration (µg/mL)	CV (%)
2000	1967	4.9
667	690	1.0
222	215	1.3
74.1	75.1	1.0
24.7	24.7	3.2
8.2	8.2	2.2
2.7	2.7	3.6

Table 1: Calculated average concentrations and CV% ranging from 2.74 – 2000 $\mu g/mL$



Figure 1: Detected concentrations in mouse hybridoma samples ranging from 0 – 5 $\mu g/mL^i$

Quantitation of low antibody expression

Detection of antigen-specific IgG's in the low nanogram per mL range allows for quantification of low antibody expression of mouse hybridoma samples previously undetected by traditional BLI.

Fast assays for quick time to results

The high sensitivity of anti-mouse Fc biosensor detects binding of antibodies within 30 seconds. Fast antibody detection allows for faster assay time and significant time savings.



Figure 2: Detected concentrations in mouse hybridoma samples ranging from 0 – 2000 $\mu g/mL$

Performance at a Glance

	Gator Bio BLI	Traditional BLI
Dynamic Range (µg/mL)	0.02 – 2000	1 – 100
Throughput	8 samples/ 30 sec.	8 samples/ 120 sec.
Regeneration	20x	Not capable
Limit of quantitation	0.02 µg/mL	1µg/mL

The Next Generation of Biolayer Interferometry

GatorPrime[™] and GatorPlus[™] next generation BLI systems provide fast and cost-effective solutions to achieve performance standards beyond the capabilities of traditional BLI. The novel polymer surface chemistry of the anti-mouse Fc biosensors supports 20 or more rounds of regeneration to reduce costper-assay without compromising quality. In addition, the same biosensor can be used for both quantitation and kinetics in one experiment, saving on hands-on time.

ⁱ Experiments in Figure 1 performed with GatorPlus