SARTORIUS

Product Datasheet

Octet® AMQ Biosensors

For Determination of Antibody Concentration

Key Features

- Direct measurement of immunoglobulins (IgG) from mouse and rat species
- Assay samples without serially diluting or centrifugation
- Assay mouse sera, cell lysates or supernatants
- Fast turnaround of results

The Octet® Anti-Murine (AMQ) IgG Biosensors, in conjunction with the Octet® system, are designed for monitoring antibody concentrations in mouse or rat sera and cell culture supernatants. Using AMQ Biosensors, the Octet® system supports applications from assay development, clonal selection, and cell culture screening to concentration monitoring during development and manufacturing.

Quick Facts

- Dynamic range:0.025–200 µg/mL for whole or subtype-specific mouse and rat IgGs
- Throughput: 8 samples in ~2 minutes
  96 samples in ~32 minutes
- Precision/accuracy: < 10% CV
- Limit of detection: 0.025 µg/mL

Research and Development Applications

Accurate antibody quantitation is critical to selecting cell lines for development, research, and bioprocess optimization. Traditional methods for measuring antibody concentration include HPLC, ELISA, and densitometry, all which require long analysis times and are burdened with a lack of specificity and precision.

The AMQ Biosensors can be used on the Octet® system to streamline a variety of research and assay development applications by providing precise results with minimal sample handling and rapid turnaround

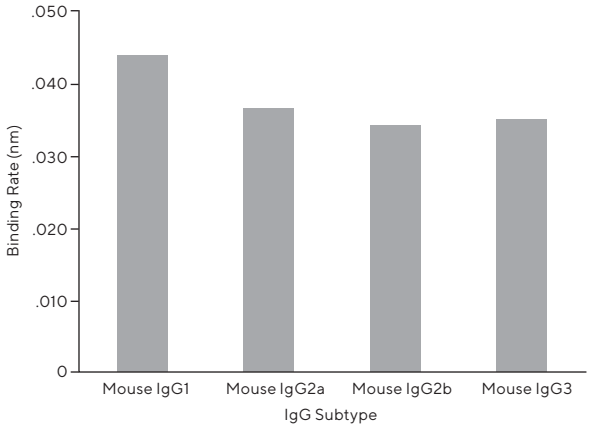

Figure 1: Recognition of various mouse subtypes using the AMQ Biosensors on the Octet® system.

Applications include:
- Hybridoma screening
- Research
- Process development
- Manufacturing

Sample Types

AMQ Biosensors have been tested on the Octet® system using purified antibodies, supernatants and sera.

Recognition of Mouse IgG Subtypes

The Octet® AMQ Biosensors have been shown to recognize IgG1, IgG2a, IgG2b and IgG3 for mouse immunoglobulins. Calibration and specificity are standard-dependent.

Recognition of Rat IgG Subtypes

In addition, the Octet® AMQ Biosensors have been shown to recognize IgG1, IgG2a, IgG2b, and IgG2c for rat immunoglobulins. Calibration and specificity are standard-dependent.

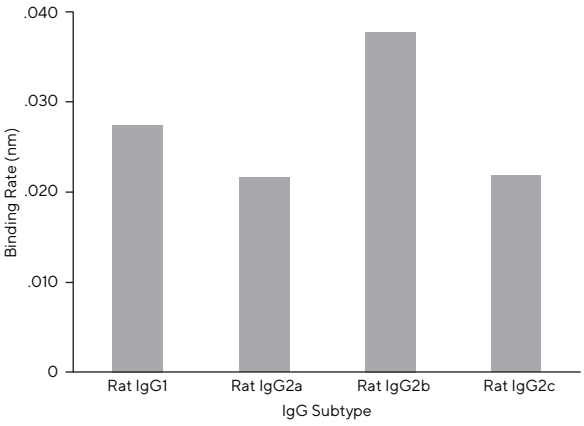

Figure 2: Recognition of various rat immunoglobulin subtypes using the AMQ Biosensors on the Octet® system.

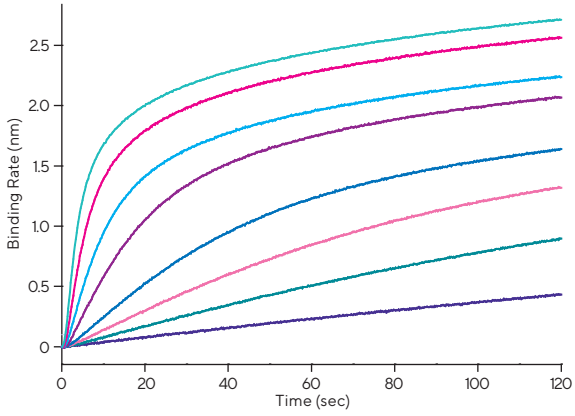

Figure 3: Real-time binding chart of mouse IgG standards.

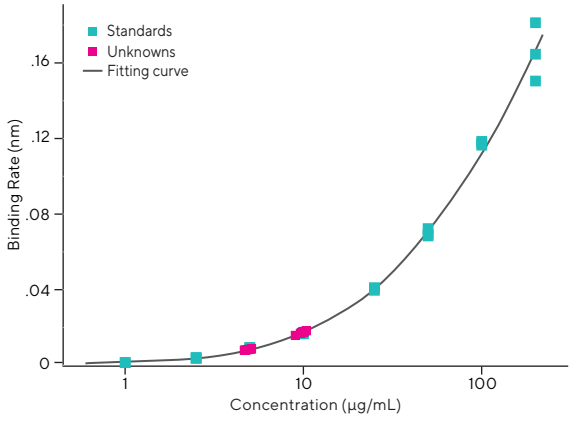

Figure 4: Standard curve with unknowns plotted on the curve.

Anti-Murine IgG Assay Principle

The AMQ Assay for determining IgG concentration is based on the rate of binding of the IgG of interest to the biosensor surface. Different IgG concentrations result in different binding rates. The Octet® system software calculates the binding rates from standards with known IgG concentrations to generate a standard curve—the binding rate of each standard is proportional to its concentration. IgG concentrations of experimental samples are calculated by comparing their binding rates to those of the known concentrations that make up the standard curve.

Assay Parameters

- Sample volume: 200 µL/well
- Hydration solution volume: 200 µL/well
- Data acquisition: 120 seconds/8 biosensors
  32 minutes/96-well plate
- Shake speed: 200 rpm/second
- Biosensor hydration and sample plate equilibration: 10 minutes
- Curve fit: 5-parameter logistic

Ordering Information

Part No.	UOM	Description
18-5022	Tray	One tray of 96 Octet® AMQ Biosensors coated with goat anti-mouse IgG antibody for quantitation applications.
18-5023	Pack	Five trays of 96 Octet® AMQ Biosensors coated with goat anti-mouse IgG antibody for quantitation applications.
18-5042	Case	Twenty trays of 96 Octet® AMQ Biosensors coated with goat anti-mouse IgG antibody for quantitation applications.

Note: Additional materials are required to run these assays.

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