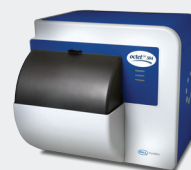


# Octet® RED384 and Octet QK384 Systems

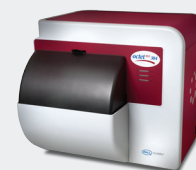
*Label-Free Quantitation and Kinetics with Enhanced Throughput and Extended Dynamic Range*

## KEY FEATURES

- 384- and 96-well assay formats
- Automation compatibility
- 16-well simultaneous detection
- Re-rack and reuse biosensors
- Two plate positions on deck
- Dip and Read™ simplicity



Octet QK384 System



Octet RED384 System

Pall ForteBio's Octet RED384 and Octet QK384 systems are designed for increased throughput for label-free protein quantitation and kinetic characterization. Get accurate concentration, kinetic constants, and affinity data for protein-protein, small molecule-protein and other fast-binding interactions – all with Dip and Read simplicity.

The Octet RED384 and QK384 systems are easy to set up and offer the versatility to run assays throughout your experimental workflow, with a large dynamic range for titer determination or fine signal resolution for reliable affinity data. Both systems analyze 8 or 16 wells simultaneously and take advantage of our large menu of biosensor chemistries.

## INCREASING THROUGHPUT

Two plate positions support either 96- or 384-well microplates for samples and reagents, and biosensor regeneration/reuse capabilities keep your workflow speeding along. Compatibility with crude

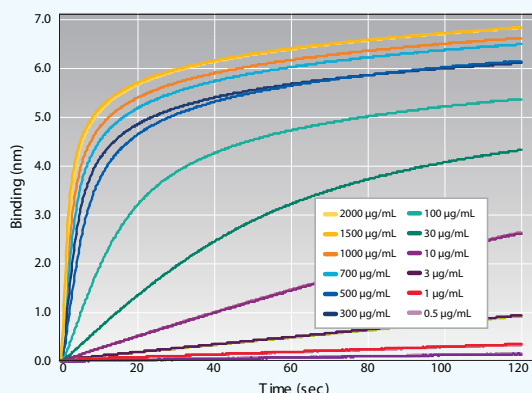
samples and high tolerance to DMSO facilitates analysis without laborious sample preparation.

## MAKING QUALITY ANALYSIS AFFORDABLE

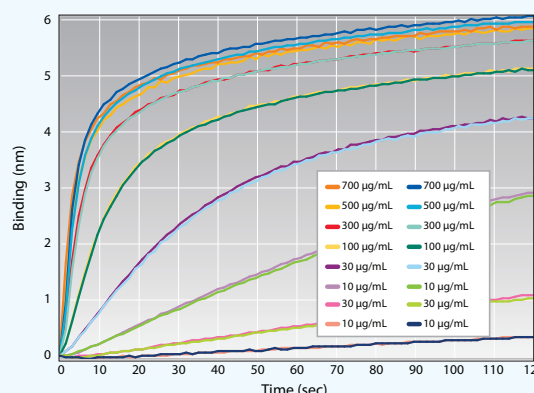
The Octet RED384 and Octet QK384 systems cost a fraction of an equivalent SPR system, yet provide fully comparable data. Reduced sample size (40–130 µL/well in 384-well microplates) and preparation combine with virtually maintenance-free instrumentation reduce equipment and reagent costs. Optional biosensor regeneration lowers assay cost per well even further.

## SIMPLIFYING YOUR WORKFLOW

The Octet RED384 or QK384 systems provide increased throughput for rapid optimization of assay conditions. Automation compatibility for plate loading enables walkaway freedom for larger experiments. Advanced software offers rapid processing of kinetic data, protein quantitation determinations, and epitope binning experiments.



**FIGURE 1:** Concentration curves obtained on the Octet RED384 system for human IgG at 0.5 µg/mL to 2000 µg/mL using Protein A biosensors and two-minute incubation per well.



**FIGURE 2:** TNF-α binding from solution to anti-TNF-α antibody on Streptavidin biosensors on the Octet QK384 system. Two-fold dilution series starting at 150 nM, six replicates at each concentration. Association and dissociation run for 300 seconds each.

## OCTET 384 SYSTEM SPECIFICATIONS\*

Sample and Analysis	
<b>Detection Technology</b>	Bio-Layer Interferometry (BLI)
<b>Biosensor Type</b>	Disposable, single-use fiber optic biosensors with optional reuse by regeneration and/or re-racking
<b>Information Provided</b>	<ul style="list-style-type: none"> <li>• Kinetic and affinity analysis (<math>k_{obs}</math>, <math>k_a</math>, <math>k_d</math>, <math>K_D</math>)</li> <li>• Kinetic screening for <math>k_a</math> or <math>k_d</math></li> <li>• Binding specificity and cooperativity</li> <li>• Concentration monitoring of real-time binding (no need for background subtraction)</li> <li>• Automated concentration determinations</li> <li>• Epitope binning and cross-blocking matrices and trace overlays</li> </ul>
<b>Data Presentation</b>	<ul style="list-style-type: none"> <li>• Plots displaying kinetic binding, equation fits, and residuals of fits</li> <li>• Tabulated kinetic data and data charts</li> </ul>
<b>Sample Types</b>	Proteins, antibodies, peptides, media containing serum, buffers containing DMSO, periplasmic fractions, untreated cell culture supernatants, and crude cell lysates
<b>Sample Plate</b>	Standard, 96-well and 384-well black, flat bottom microplate, and 384TW microplate
<b>Sample Volume</b>	<ul style="list-style-type: none"> <li>• 40–100 <math>\mu</math>L/well (384TW microplate);</li> <li>• 80–130 <math>\mu</math>L/well (384-well microplate);</li> <li>• 180–220 <math>\mu</math>L/well (96-well microplate)</li> <li>• Nondestructive testing, easily recovered</li> </ul>
<b>Orbital Flow Capacity</b>	Static or 100–1500 rpm
<b>Analysis Temperature Range</b>	(Ambient + 4°C) – 40°C, 1°C increments

Quantitation and Kinetics	
<b>Throughput</b>	Up to 16 assays in parallel; up to 96 assays per 96-well microplate and 384 assays per 384-well microplate
<b>Analysis Time per Sample</b>	<ul style="list-style-type: none"> <li>• hIgG quantitation in 2 minutes for 16 samples, <math>\leq</math>20 minutes for 96 samples and <math>\leq</math>75 minutes for 384 samples in a 384-well microplate</li> <li>• Real-time kinetic binding experiments from 5 minutes to 4 hours</li> </ul>
<b>Baseline Noise</b>	<ul style="list-style-type: none"> <li>• <math>\leq</math>4 pm (RMS) for Octet RED384 system</li> <li>• <math>\leq</math>8 pm (RMS) for Octet QK384 system</li> </ul>
<b>Quantitation Range for hIgG</b>	<ul style="list-style-type: none"> <li>• Octet RED384 system: 0.5–2000 <math>\mu</math>g/mL at 400 rpm, 0.05–100 <math>\mu</math>g/mL at 1000 rpm</li> <li>• Octet QK384 system: 1–700 <math>\mu</math>g/mL at 400 rpm, 0.1–100 <math>\mu</math>g/mL at 1000 rpm</li> </ul>

Physical Specs	
<b>Dimensions</b>	30.1" H x 31.5" W x 31.5" D (77 cm H x 80 cm W x 80 cm D)
<b>Weight</b>	150 lb (68.2 kg)
<b>Electrical Requirements</b>	<ul style="list-style-type: none"> <li>• Mains: AC 100–240 V, 5.0–2.0 A, 50/60 Hz, single phase</li> <li>• Power consumption: 195 W (240 W peak)</li> </ul>
<b>Safety Standards</b>	CE, CSA

## ORDERING INFORMATION

Part No.	UOM	Description
30-5100	System	System includes Octet QK384 instrument, desktop computer, LCD monitor, accessory kit, and one-year warranty.
30-5101	System	System includes Octet RED384 instrument, desktop computer, LCD monitor, accessory kit, and one-year warranty.

\*Specifications are subject to change without notice.

For more information about Pall ForteBio's Octet platform for label-free, real-time detection of biomolecular interactions, applications, and services, visit [www.fortebio.com](http://www.fortebio.com) or contact us directly.




Pall ForteBio  
47661 Fremont Boulevard  
Fremont, CA 94538  
t: 888.OCTET-75  
or 650.322.1360

[www.fortebio.com](http://www.fortebio.com)

Pall ForteBio Europe  
5 Harbournate Business Park  
Southampton Road  
Portsmouth, PO6 4BQ, UK  
t: +44-(0)203 318 2840

Pall ForteBio Analytics (Shanghai) Co., Ltd.  
No. 88 Shang Ke Road  
Zhangjiang Hi-tech Park  
Shanghai, China 201210  
t: +86 21 51915777

© 2011–2016, Pall Corporation. Pall, , ForteBio, Octet, BLItz and Dip and Read are trademarks of Pall Corporation. ® indicates a trademark registered in the USA and ™ indicates a common law trademark.