

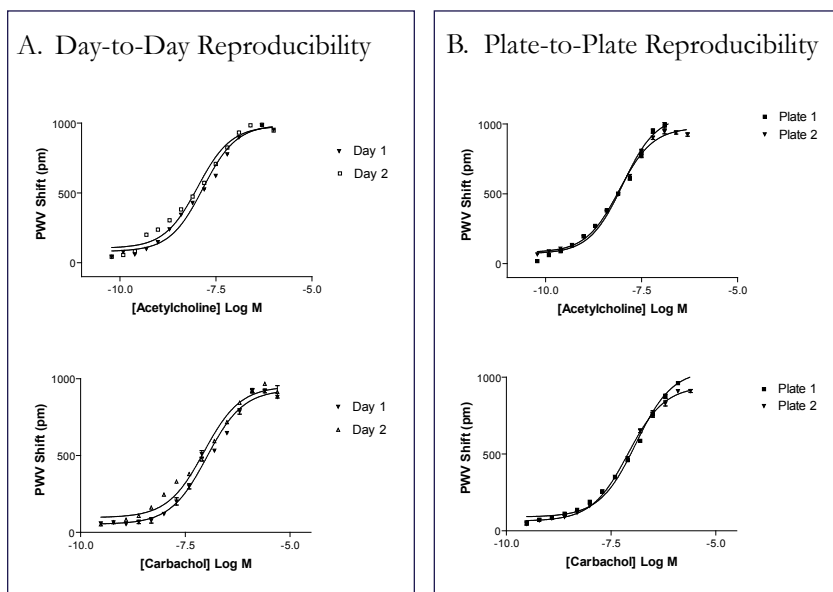
The BIND[®] SCREENER is label-free, plate-based reader designed for ultra-high throughput environments and provides quantitative measurements of a variety of cellular and biochemical interactions. The SCREENER is a small footprint, bench-top instrument capable of reading 96-, 384-, 384LV- and 1536-well Biosensor plates. It is easily integrated within a variety of automation platforms. Throughput can be maximized using the TURBO read mode option which allows a 1536-well plate to be read in as little as 45 seconds.

SCREENER Features

- 96-, 384- and 1536-well read capabilities
- Ideal for in vitro biochemical and live cell-based assays
- Flexible automation integration, including on-board liquid handling
- Unmatched label-free read times
- Kinetic & endpoint measurements produce information-rich data
- Real-time data acquisition & viewing



Highly Reliable & Reproducible Data

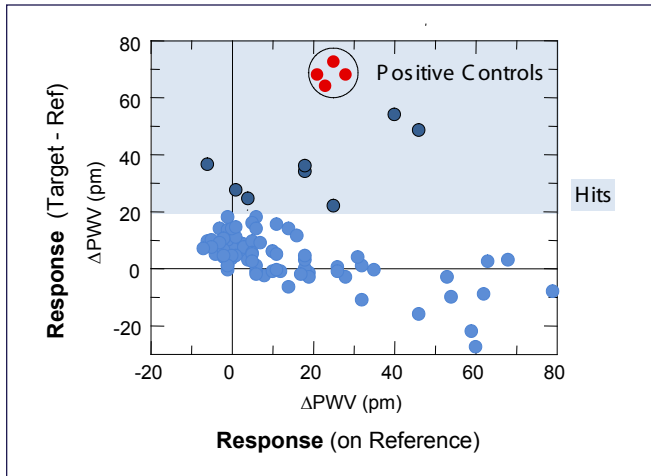


The SCREENER is a highly scalable instrument that is flexible enough for assay development and powerful enough for high throughput screening. Assays developed in 384-well formats can be easily migrated to 1536-well formats enabling miniaturization and downstream screening without sacrificing assay performance. Using BIND's sensitive and robust technology, the SCREENER produces superior results for miniaturized, biochemical and cell-based assays. Z factors are routinely above 0.8 with CVs <10% as shown in Figure 1 for a 384/1536-well GPCR activation assay.

Figure 1 - Cells expressing the M4 muscarinic receptor were plated onto BIND[®] CA-2 Biosensors. Acetylcholine or carbachol were added using the Biomek[®] Fix-BIND SCREENER integration platform and responses measured. Graphs show concentration curves of two different 384-well plates run on two different days (A) or two different 1536-well plates run the same day (B), demonstrating the well-to-well, plate-to-plate and day-to-day reproducibility of BIND.

Agonist	pEC ₅₀	Z' achieved	Agonist	pEC ₅₀	Z' achieved
Acetylcholine	Day 1: 7.8 Day 2: 8.0	0.93	Acetylcholine	Plate 1: 8.0 Plate 2: 8.1	0.87
Carbachol	Day 1: 7.0 Day 2: 7.1	0.90	Carbachol	Plate 1: 6.9 Plate 2: 7.1	0.83

Fragment-based Screening



Protein:small molecule binding assays are easily performed using the BIND[®] platform including small molecular weight compound and fragment-based screening. Figure 3 shows the binding of fragments (<300Da) to a 25 kDa protein target. These data correlate well with the results of previous screens performed using lower throughput biophysical methods such as NMR and X-ray crystallography.

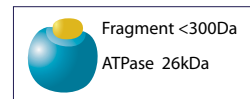


Figure 2 - Binding of a fragment library with average molecular weights <300 Da and affinities ranging from 1nM to approximately 1mM, to BIND Biosensors coated with a 25 kDa ATPase. Data courtesy of Astex Therapeutics, UK.

Flexible Automation Integration Solutions

The SCREENER's small footprint, easy-access plate holder and open architecture software enable simplified integration within customers' preferred automation solution. BIND Readers have successfully been integrated with industry-standard laboratory automation devices including robotic arms, liquid handling systems and plate hotels. Ultra-high throughput speeds are achieved with a SCREENER-Biomek[®] FX integration package that can assay over 120,000 samples per 8 hour day in a 1536-well Biosensor format.



Unmatched Detection Times Using SRU's TURBO Read Mode

The SCREENER is available with an optional TURBO read mode that decreases read times by up to 75%. Using TURBO, a 384-well BIND Biosensor can be read in <20 seconds and a 1536-well Biosensor in <60 seconds. The TURBO option is available at the time of purchase or as a field upgrade.

SRU's EMS Software: Powerful User-Interface

All BIND Readers are supplied with SRU's Experiment Management System (EMS) software. EMS provides complete control of assay parameters through an easy-to-use, intuitive interface and allows for real time visualization, export and secure storage of all data. Data can be exported from EMS using a custom export wizard in several file formats for maximum flexibility.

SCREENER Specifications

Compatible plates:	All 96-, 384-, 384-LV and 1536-well BIND [®] Biosensor microplates
Read Times:	96-well in 30 seconds, 384-well in 1 minute, 1536-well in 3 minutes
TURBO Read Times:	96-well in 8 seconds, 384-well in 15 seconds, 1536-well in 45 seconds
Operating Temp. Range:	4°C to 37°C
Dimensions:	15.5 in. (W) x 17.6 (D) x 14 in. (H)
Weight:	68 lbs.
Computer:	Computer and monitor included



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