

# Corning® Epic® System

## Commercial Specifications

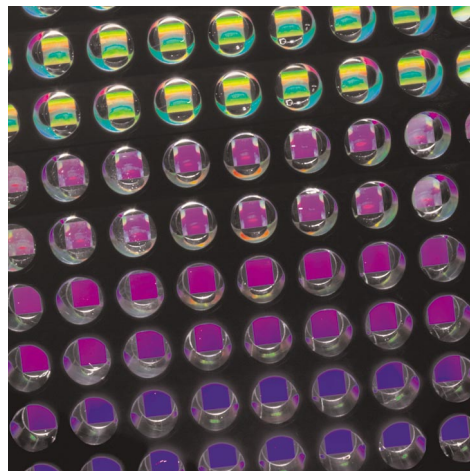
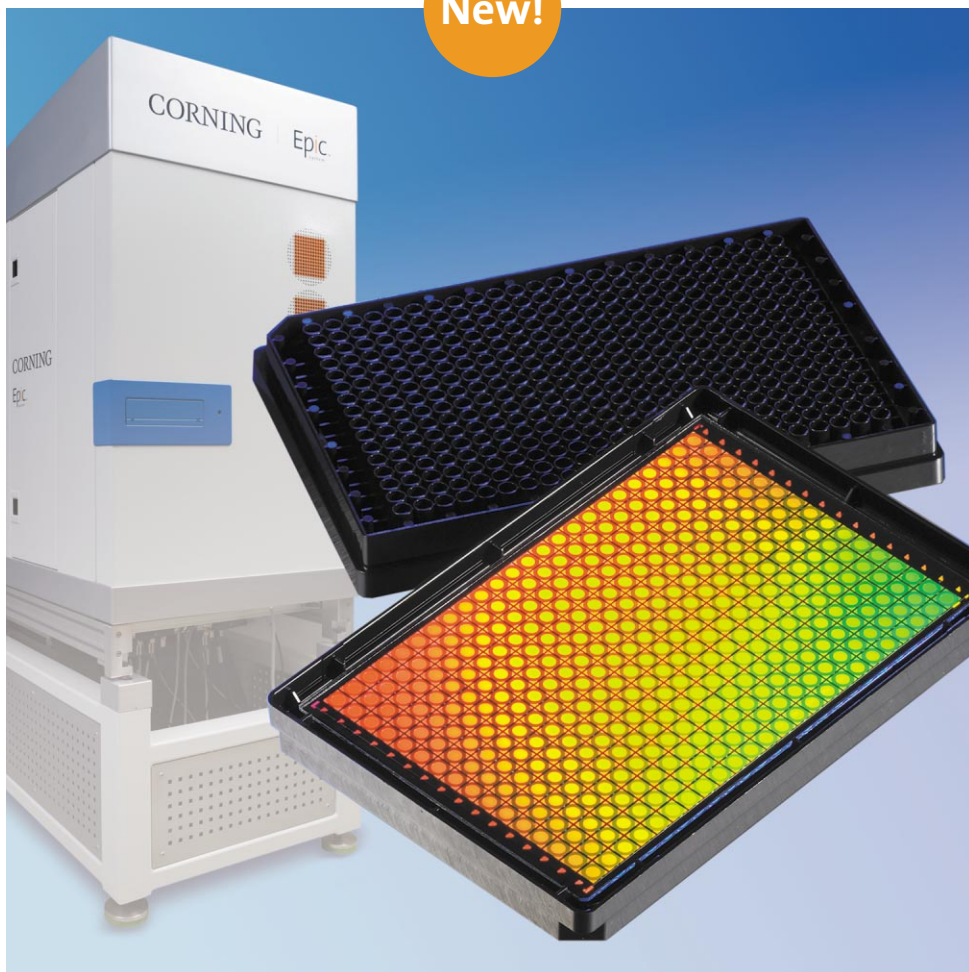
### Features and Benefits

- ▶ Label-free high-throughput screening
- ▶ Addresses limitations of biochemical and cell-based assays
- ▶ SBS-standard 384-well microplate format
- ▶ Integrates with external HTS equipment
- ▶ Enables access to new information

### Overview

The Epic System combines proven label-free optical technology with the benefits of high-throughput screening in a 384-well microplate for both biochemical and cell-based applications. Consisting of a disposable SBS standard 384-well microplate with optical biosensors integrated in each well and an HTS-compatible optical reader, it enables up to 40,000 wells to be read in an 8 hour period. By harnessing the properties of glass and light, the Epic System eliminates issues associated with using labels and over-expressed cell lines while providing access to new information.

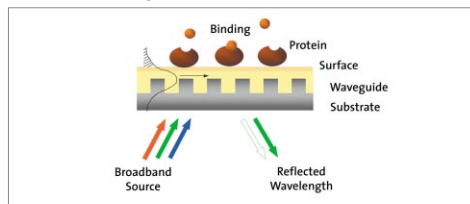
New!



CORNING  
Epic<sup>®</sup>  
system

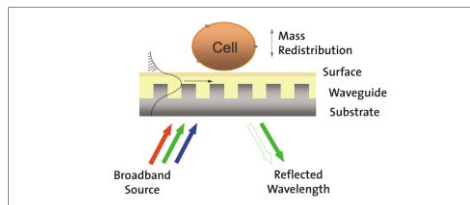
## Epic System Detection Principle

### Biochemical Assay



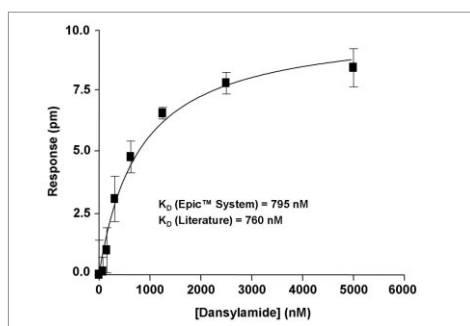
A wavelength shift results from the amount of analyte that binds to the immobilized target.

### Cell-Based Assay



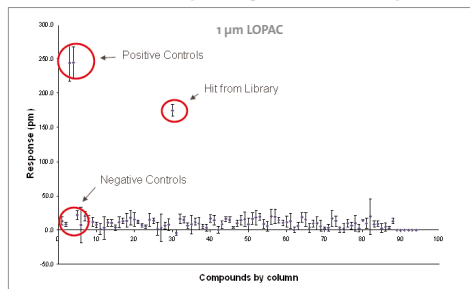
A wavelength shift results from the dynamic mass distribution that occurs inside the cell.

### Epic System Carbonic Anhydrase Binding Assay



$K_d$  determination for Dansylamide (250 Da) against a carbonic anhydrase target.

### HTS Cell-Based Assay Using LOPAC™ Library



An HTS assay was conducted on the Corning Epic System to demonstrate assay performance in high throughput.

## Corning® Epic® System Product Information and Specifications<sup>1</sup>

### Epic System

|                                 |   |
|---------------------------------|---|
| Detection method                | Optical biosensor (waveguide resonant grating)    |
| System variability              | 800 fm  |
| Certification                   | CE certified                                      |
| Size (width x length x height)  | 0.83 m x 1.15 m x 1.98 m                          |
| Instrument measurement noise    | 0.25 pm (root mean square, 10 scans)              |
| Time to initial read            | 36 seconds from plate insertion                   |
| Single point read time          | 6 seconds/microplate                              |
| Power                           | 115VAC/230VAC, 15A/7.5A                           |
| Air supply required             | 90 psi, 0°F dewpoint                              |
| Operating system                | Microsoft® Windows                                |
| Wear part lifetime              | 1,000 hrs.  |
| Operating environment of system | 23°C ± 3°C, <70% non-condensing relative humidity |

### Epic Microplate

|                                  |                                     |
|----------------------------------|-------------------------------------|
| Color                            | Black                               |
| Maximum well volume              | 82 μL                               |
| Lid compatibility                | Corning® Low-Profile Lid (included) |
| Well bottom elevation            | 3.3 ± 0.1 mm                        |
| Dimensions                       | SBS standard                        |
| Molecular weight detection limit | >157 Da (assay dependent)           |

Epic microplates are compatible with most aqueous buffers (pH 5.5-9.0) and DMSO concentrations of ≤5% for at least 24 hrs.

### Epic Biochemical Assay Microplate (Cat. No. 5041)

|                    |   |
|--------------------|---|
| Surface            | Amine coupling chemistry                    |
| Assay volume       | 15-30 μL typical                            |
| DMSO tolerance     | Up to 5%                                    |
| Working pH range   | 4-10  |
| Soak time          | 4 hours in buffer prior to assay is typical |
| Storage conditions | Room temperature                            |

### Epic Cell Assay Microplate (Cat. No. 5040)

|                         |                           |
|-------------------------|---------------------------|
| Surface                 | Tissue culture compatible |
| Assay volume            | 25-50 μL typical          |
| Typical seeding density | 10,000-20,000 cells/well  |
| Storage conditions      | Room temperature          |

### Epic Fibronectin-Coated Cell Assay Microplate (Cat. No. 5042)

|                         |                                |
|-------------------------|--------------------------------|
| Surface                 | Tissue culture compatible      |
| Assay volume            | 25-50 μL typical               |
| Typical seeding density | 5,000-15,000 cells/well        |
| Storage conditions      | Store at 2-8°C (Do not freeze) |

<sup>1</sup>The Epic System requires Corning low-profile lids on the microplates in order to meet these performance specifications.

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