

# Gen5™ Data Analysis Software

Gen5™ 2.0 Data Analysis Software is a culmination of over 30 years of experience and user feedback resulting in the newest and most advanced microplate reader software available today. Gen5 is a unique combination of power and ease-of-use that drives productivity and saves time. Use Gen5 to control BioTek's microplate readers and export data, or as a fully integrated processing tool.

## Features:

- **Beginner-Friendly Software**

Gen5 2.0 is built around logical laboratory workflows to read microplates and produce, analyze and export data. In Gen5, you simply click "Read Now" and follow the prompts. At the end of the read, answer the question: "Do you want to export to Excel?" With Gen5 you don't have to spend hours figuring out how to get the job done.

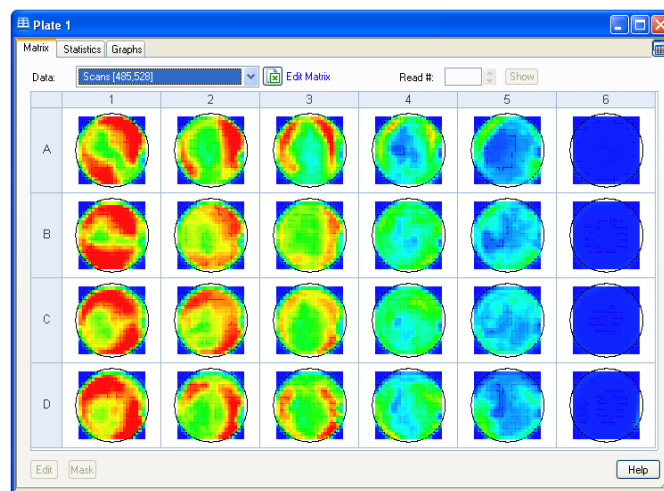


- **All-in-One Solution**

Control any current BioTek reader, automate the entire process and produce publication-ready reports in minutes using one integrated, powerful software tool. It doesn't get more efficient than this.

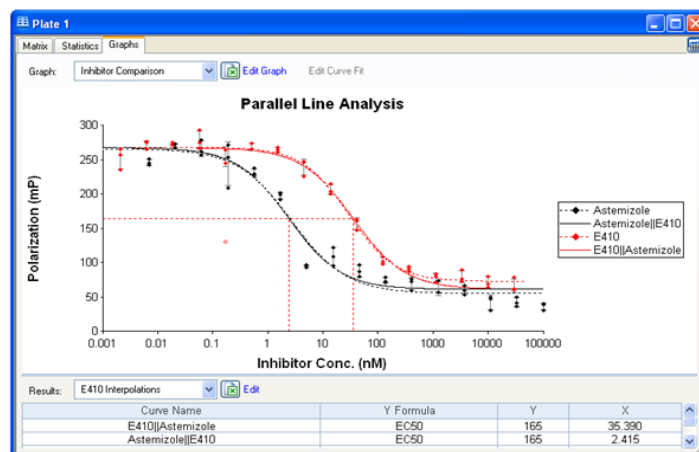
- **Up-to-Date Web-based Sample Files**

A searchable library of sample files with data is available online. Existing files are kept up-to-date and new files are added on regularly. Gen5 users can upload files to share their experiments and sample data with other Gen5 users.



- **Powerful Functionality**

Gen5 2.0 comes with powerful built-in tools such as 4-P and 5-P curve fits with or without weighting, parallel-line analysis, advanced kinetic analysis, well scanning and much more. The software has been specifically designed to analyze matrices of data that are difficult to process in Microsoft® Excel® spread sheets. Special attention has been placed on result presentation familiar to microplate users so complex data can be displayed in a clean, colorful way to facilitate interpretation.



- **Gen5 Secure: You are in Control**

Gen5 2.0 Secure is for you if secured data storage, user group management or 21 CFR part 11 compliance are a core part of your requirements. It includes additional features such as 25 licenses per copy, quality control trending module with Levey-Jennings charts and automatic email notification on trigger events.

## Specifications:

### General

|                              |   |
|------------------------------|---|
| Compatible readers:          | All current BioTek microplate readers   |
| Validation guidelines:       | Validated per US FDA and ISO 9001/ISO 13485 requirements                          |
| Software validation package: | Available   |
| Operating system:            | Microsoft® Windows® 7 32 and 64 bits, Windows Vista and Windows XP (Pro editions) |
| Minimum requirements:        | Pentium® III 500 MHz, 512 MB RAM, 2 GB hard drive space                           |
| Plate geometries:            | >80 pre-programmed, user programmable   |

### Reader Control

|                               |   |
|-------------------------------|---|
| Simultaneous control:         | 2 readers   |
| Pathlength correction:        | On select readers   |
| Steps per sequence:           | Unlimited   |
| Detection modes per sequence: | Unlimited   |
| Multi-mode kinetic:           | Up to 3 detection modes per kinetic loop                                    |
| Area scan resolution:         | Up to 99 x 99 (9,800 data points per well) on select readers                |
| Shaking duration:             | 16-minutes stand-alone step; Unlimited continuous shaking in kinetic cycles |

### Data Analysis

|                         |   |
|-------------------------|---|
| Protocol type:          | Standard (plates are independent)<br>Calibrator (1 calibration plate, multiple sample plates)<br>Multi-Plate (standard and controls on several plates)<br>Paneled (multiple assays per plate) |
| Sample types:           | Standards, assay controls, sample controls (spikes), blanks, samples  |
| Transformation steps:   | Unlimited   |
| Basic transformations:  | Blanking, ratio, delta, normalization, custom   |
| Curve fits:             | Linear, polynomial (degree 2 to 6), 4-P, 5-P, Logit-Log, Point to Point, Spline   |
| Weighting:              | 1/Y, 1/Y <sup>2</sup> , 1/(Std dev Y <sup>2</sup> ), 1/S <sup>2</sup>   |
| Parameter constraint:   | Estimate all, Y intercept, fixed parameters   |
| Parallel line analysis: | Standard, non linear analysis for relative potency calculation  |
| Dose-response:          | EC <sub>50</sub> / IC <sub>50</sub> calculation   |
| Kinetic analysis:       | Max slope, mean slope, min/max signal, lag time, Y intercept, onset time, area under the curve, custom  |
| Spectral analysis:      | Min/max signal, peak wavelength, integral, custom   |
| Qualitative analysis:   | Multi-cutoff data analysis  |

### Validation and QC

|                                |   |
|--------------------------------|---|
| QC trending:                   | Levey-Jennings charts (Gen5 Secure)         |
| Pass/fail validation criteria: | Yes   |
| Z' analysis:                   | Yes   |
| Statistics (mean, stdev, %CV): | Yes, automatically calculated on replicates |

### Exporting

|                             |  |
|-----------------------------|--|
| Format:                     | .xls, .xlsx, .xlsm, .csv, .txt                           |
| Quick export:               | One click any data / graph on screen                     |
| PowerExport:                | Auto / customizable embedded Microsoft Excel spreadsheet |
| ASCII export:               | Auto / customizable text export                          |
| Number of exports per file: | Unlimited  |

### Reporting

|                             |   |
|-----------------------------|---|
| Number of reports per file: | Unlimited   |
| Report type:                | Per plate: All data regrouped per microplate<br>Per sample: All data regrouped per sample |

### Gen5 Secure - 21 CFR Part 11 Compliance

|                            |   |
|----------------------------|---|
| System administrator:      | Creation and maintenance of user accounts and user groups |
| Protected functions:       | Per user account  |
| Time-stamped audit trails: | Data and protocol audit trails                            |
| Electronic signatures:     | Data and protocols  |
| Secure record storage:     | Gen5 files stored in secure shared-access database        |
| Windows authentication:    | Single Sign On (SSO) available                            |
| Email notification:        | Automatic email notification based on trigger event       |

\*Specifications subject to change

## Versions:

### Gen5

Advanced reader control functionality, powerful data analysis and flexible exporting/reporting tools combined in one easy-to-use software; For applications in life science research, pharmaceutical and biotechnology laboratories.

### Gen5 RC (Reader Control)

Simple reader control interface provides easy data collection and output to text and Excel.

### Gen5 Secure

For secured data storage, user group management or 21 CFR part 11 compliance; Includes 25 licenses per copy, quality control trending module with Levey-Jennings charts and automatic email notification on trigger events.



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