

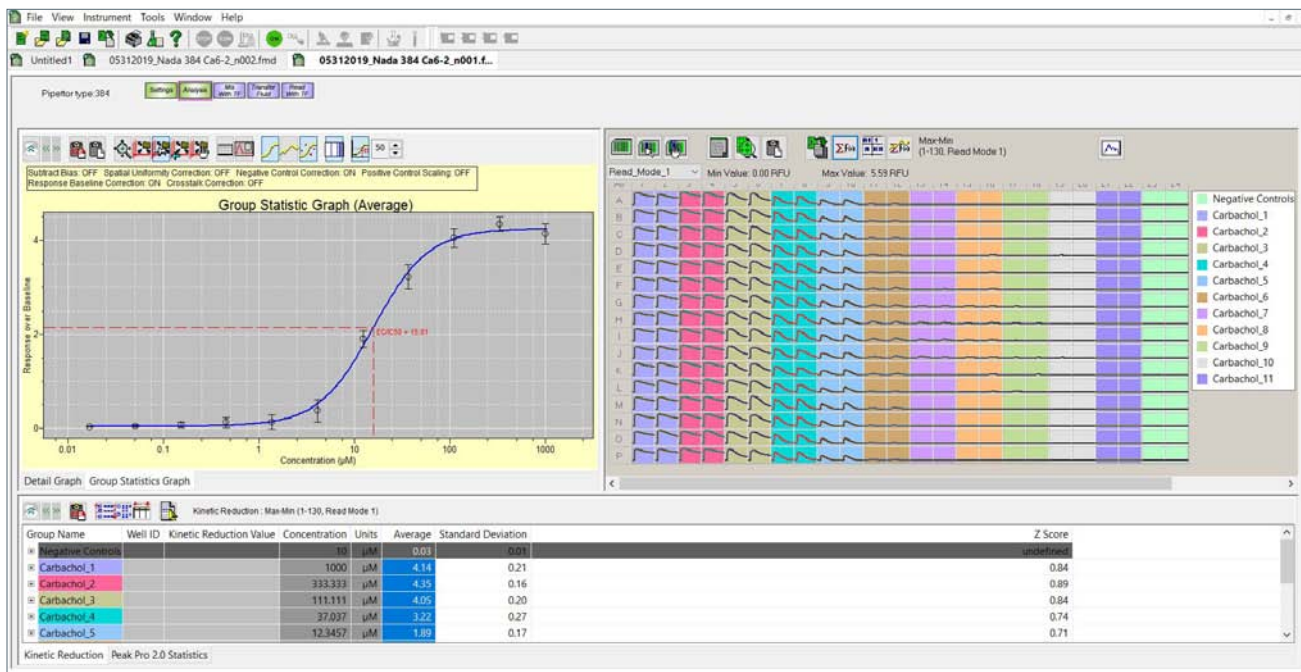


ScreenWorks Software

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Bring simplicity to your multi-user environment with unique protocols utilizing ScreenWorks® Software on the FLIPR® Penta High-Throughput Cellular Screening System. The software controls equipment intelligence and instrument motion as well as capturing data for analysis and export during highly kinetic assays. It records signal from both standard GPCR assays in fluorescent or luminescent format and up to 100 fluorescent images per second during an iPSC cardiomyocyte fast calcium oscillation assay. The optional, add-on Peak Pro 2 software module enables you to perform advanced peak analysis. It is especially helpful for analysis of iPSC derived cardiomyocyte and neuron calcium oscillation assays.

ScreenWorks Software is both flexible and user friendly. During protocol setup, only relevant options are displayed, based on the installed fluidics and optics hardware, making it easy to choose parameters that are right for each assay. Live and information-rich data in 96-, 384-, or 1536-well plate format is displayed during testing. Specific wells can be grouped for analysis or data export purposes. Graphs and tables can be easily copied and pasted into documents, presentations or worksheets, and different reductions can be selected for group statistics, making results readily accessible.



Screenshot of ScreenWorks Software after a basic GPCR calcium flux protocol has been executed. In analysis mode, data grouping and a four parameter curve fit make it possible to quickly calculate the EC₅₀ value from the curve.

Intuitive, user-friendly software interface

Customize protocols and data processing

The FLIPR Penta system utilizes our ScreenWorks software to define and run experimental protocols.

Using a drag-and-drop interface, protocols can be easily set up to include:

- Fluorescent or luminescent read modes
- Simultaneous transfer of 96, 384, or 1536 liquid or cells in suspension
- Complex quadrant, multiple aspirations or multiple dispensing liquid handling
- Single or ratiometric kinetic cell-based reading
- Tip washing with up to two solvents
- Cell suspension delivery with automatable cleaning protocols
- Standard fluorescence or optional aequorin luminescence detection
- Simple-to-create automation protocols
- Optional Peak Pro software module with easy signal oscillation anomaly detection

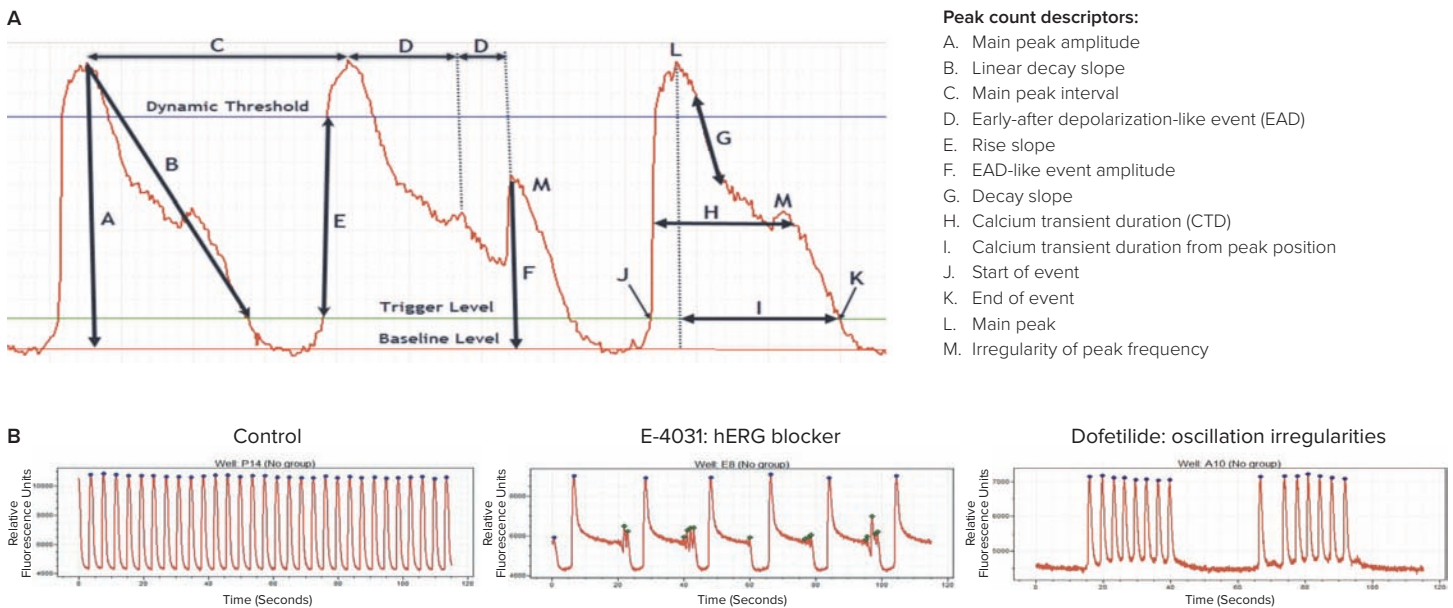


High-throughput early toxicity screening with optional Peak Pro 2 software module

Advanced peak detection and event characterization measurements and analysis functionality are available with the optional Peak Pro 2 software module. This data analysis capability is especially useful with cardiomyocyte and neuronal protocols. The Peak Pro 2 analysis algorithm reduces false detections without the need to condition the raw data using search vectors.

The FLIPR Penta system with high-speed camera (HS EMCCD) option, for monitoring calcium flux in GPCRs and ion channels with Peak Pro 2 software module, allows you to measure and analyze patterns of calcium oscillations before and after treatment of human iPSC-derived cardiomyocytes and neurons. Images can be taken at up to 100 times per second. You can analyze patterns using more than 30 various measurements.

New safety measures in the drug discovery world, such as the NIH CIPA initiative, have placed added emphasis on early assessment of clinical potential. The instrument hardware flexibility and easy-to-use Peak Pro 2 software module can help you assess and quantitate oscillation patterns consistent with potential cardiotoxicity earlier in the drug discovery process. It is also possible to characterize Ca^{2+} oscillation patterns in neuronal cells and spheroids. Panel A shows some of the parameters that you can measure. Panel B shows control and two examples of oscillation patterns.



Panel A) Calcium oscillation measurements available in Peak Pro 2 software module. Panel B) Calcium oscillations: Control; E-4031: hERG blocker; Dofetilide: oscillation irregularities.

Ordering information**Part number**

ScreenWorks Software Site License*	0320-0392
ScreenWorks Peak Pro 1 software module for ScreenWorks 5.x Software	5075630
ScreenWorks Peak Pro 2 software module**	5074843
ScreenWorks Peak Pro 1 software module for ScreenWorks 4.2 Software and lower	5016900

*The host PC that ships with the FLIPR Penta system is preinstalled with ScreenWorks 5.x Software. One license of ScreenWorks 5.x Software supports five installations, including one for the host PC controlling the FLIPR Penta system, and four for data analysis PCs.

**Peak Pro 2 software module is only compatible with ScreenWorks 5.0 Software and above. A 14-day free trial is included with ScreenWorks Software.

Please see FLIPR Penta system brochure for additional information:

<https://www.moleculardevices.com/sites/default/files/en/assets/brochures/dd/flipr/flipr-penta-high-throughput-cellular-screening-system.pdf>

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