New and Unique Techniques in Life Science using Microplate Instrumentation from BioTek Instruments

Different Cell-Based Assays using the Patented Hybrid Technology™ and Cell Imaging

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BioTek Instruments has been awarded US patent 8,218,141 covering the combination of two alternate paths for light within the same analytical instrument. Known as Hybrid Technology™, the patented functionality is available in BioTek's Synergy™ NEO HTS Multi-Mode Microplate Reader and in the Synergy H4 and H1 Hybrid Multi-Mode Microplate Readers.

Using Hybrid Technology™, light can be directed to and from the microplate samples through a filter-based optical system or through a monochromator-based optical system for wavelength selection. This two-optical-path system provides optimal performance and flexibility for a wide range of applications in fluorescence microplate assays. BioTek's Synergy readers are modular platforms that can include Fluorescence Intensity, UV-Vis Absorbance, Luminescence, TRF, TR-FRET and FP detection modes.

This presentation we will demonstrate the power of BioTek instrumentation which can perform a wide range of diverse applications in the biochemistry laboratory. These applications cover micro-volume nucleic acid quantification from 2 µL samples using the monochromators in absorbance mode; high sensitivity cellular signal transduction assays (AlphaScreen™) using spectral filters; live cell fluorescence assays using the monochromators in fluorescence mode and finally using the GloSensor® (Promega) for monitoring cAMP levels of GPCRs using a bioluminescent readouts or powerful Imaging to be used for phenotypic analysis or cell counting.