

Luminometer



EPCC / PRODUCTS / APPLICATION / SOFTWARE / ACCESSORIES / CONSUMABLES / SERVICES

Analytical Technologies Limited

An ISO 9001 Certified Company

www.analyticalgroup.net

►► Introduction

Discover, Explorer and Navigator are state-of-the-art detection readers offering luminescence, fluorescence and absorbance detection capabilities with preloaded protocols and touch screen functionality. They make data analysis easy.

►► Easy-To-Use

The intuitive touchscreen display, preloaded protocols and automatic instrument gain adjustments make it simple to produce your data and analyze results.

►► Integrated with ATL Assays

Optimized, preloaded ATL protocols are part of the Systems Software, minimizing the time you spend optimizing instrument settings, and ensuring your experiments run smoothly.

►► Flexible

Select the detection module or modules you need for your assays. The Discover and Explorer Systems can be placed on a bench top for standalone use or integrated into a larger automated platform for higher throughput. Whatever your workflow, Systems will accommodate your needs.

►► Superior Performance

The Systems provide a broader dynamic range to measure both high and low samples within the same experiment, resulting in better sensitivity for detecting low level samples and lower well-to-well cross talk. You can be confident in your readings.

►► World Class Service and Support

Systems come with a comprehensive one-year standard warranty, and our expert service team is available to help if you have questions about either the instrument or chemistries. We offer a full line of additional service products, including Installation and Operation Qualification (IQ/OQ).

Discover, Explorer and Navigator offer a range of detection options. Purchase the instrument and modules you need now. Upgrade your system later as your laboratory needs change.

Systems Model	Luminescence	Fluorescence	Visible Absorbance	UV-Visible Absorbance	BRET and FRET
Luminometer Model No 2000 / 2010	✓				
Luminometer Model No 3500	✓	✓	✓	Upgrade	Upgrade

►► **Unpack, Plug In and Start Generating Data**

We've made it easy for you to quickly set up your Detection System and begin collecting and analyzing data, right out of the box.

►► **Automatic Instrument Adjustments**

No need to worry about manually adjusting the gain for luminescence reads. Systems perform this adjustment for you, providing you with optimized settings.

►► **Reporting**

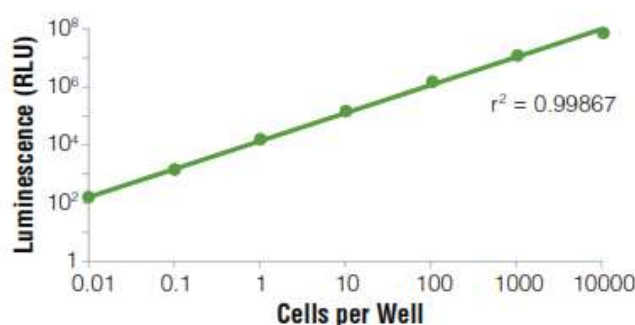
Systems software provides many of the required technical elements of a part 11 compliant system (user authentication and authorization, data walk-away integrity and protection, electronic signatures and audit trails) when used with the appropriate laboratory workflow.

►► **Minimal Manual Intervention**

Automated filter switching allows you to easily multiplex assays, gaining more data from a single well. Measure cell viability and gene reporter activity with the touch of a button.

►► **Data Analysis**

Systems SMART Protocols provide additional data analysis options. Easily measure and analyze your results using the intuitive, preloaded software.



►► Easy to Use for Your Application

►► Automatic Filter Slides

- Multiple reads without user intervention
- Easily perform BRET and FRET studies
- Customize filters for your needs

►► Flexible Interface

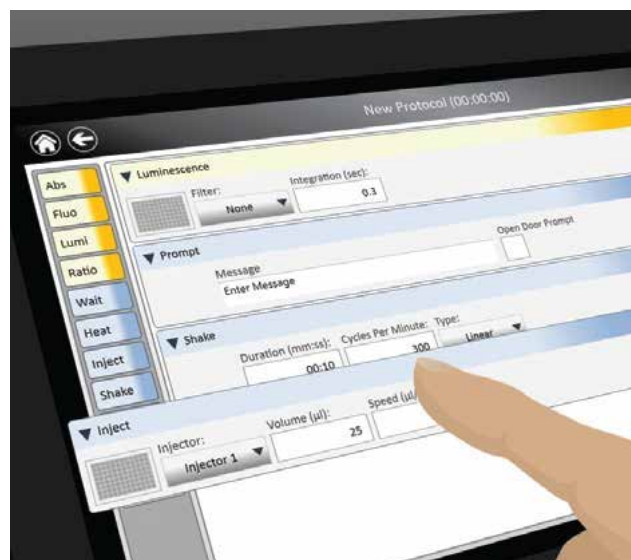
- Select a preloaded protocol or customize your own
- Set up a plate map
- View data in a heat map display to quickly identify trends
- Easily export your results to a variety of locations including a local network, web-based cloud, LIMS or any drive desired



bret tm 2013.01.04 03:07:24

Ratiometric BRET, 525-575, 550-650, 0.3 Sec

All	1	2	3	4	5	6	7	8	9	10	11
A	0.000508	0.000491	0.000504	0.000501	0.000481	0.000512	0.000501	0.000503	0.00045	0.000607	0.000472
B	0.00136	0.00207	0.00207	0.00203	0.00178	0.00181	0.00219	0.00187	0.00151	0.00139	0.00124
C	0.00207	0.00215	0.00231	0.00207	0.002	0.00196	0.002	0.0019	0.00134	0.00152	0.00146
D	0.00203	0.00221	0.00224	0.00215	0.002	0.00205	0.00212	0.00194	0.00156	0.00144	0.00166
E	0.00209	0.0025	0.00248	0.00239	0.00225	0.00236	0.00226	0.00222	0.00188	0.00177	0.00188
F	0.00242	0.00254	0.00279	0.00278	0.00287	0.00295	0.00278	0.0028	0.00225	0.0022	0.00221
G	0.00277	0.00296	0.00291	0.00305	0.00313	0.00307	0.00311	0.00304	0.00283	0.00287	0.00278
H	0.00284	0.00302	0.00306	0.00306	0.00281	0.0029	0.00301	0.00267	0.00293	0.00281	0.00309



►► Integrated with ATL Assays

Detection Systems offer superior performance for a wide array of assays for your research. The sensitivity, broad dynamic range and low well-to-well cross talk provide you with more usable and relevant data.

Whether you study cell health, monitor cell viability or toxicity, or assay signaling pathways, Systems produce data you can use. Are you developing drug candidates and monitoring kinase activity? These Detection Systems are ready to support your research. Systems also detect readout from ATL bioassays and evaluate monoclonal antibody activity.

►► Developed and Optimized at ATL

- Use the 50 preloaded protocols, or customize your own
- Optimized settings to achieve the best results, producing data more quickly
- Protocols available for:
 - Nucleic acid quantitation for next-generation sequencing
 - BRET and FRET for protein interaction analysis
 - Kinase and cell signaling assays
 - Multiplexing assays
 - Cell-based assays
 - Reporter gene assays
 - Bioassays
 - ELISAs

►► The Versatility and Performance You Need

►► Multiplex Assays

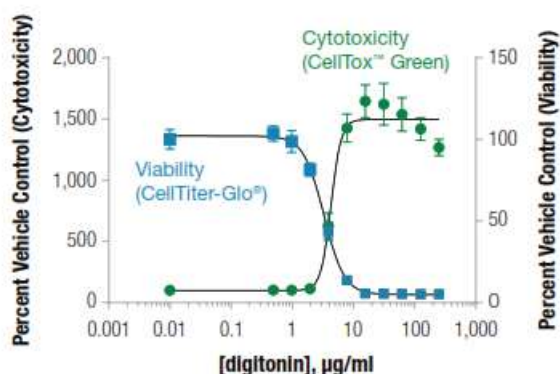
Easily read multiplexed cell viability, apoptosis and cytotoxicity assays.

►► Screen Kinase Inhibitors

Efficiently read the output of kinase inhibitor screening and automatically

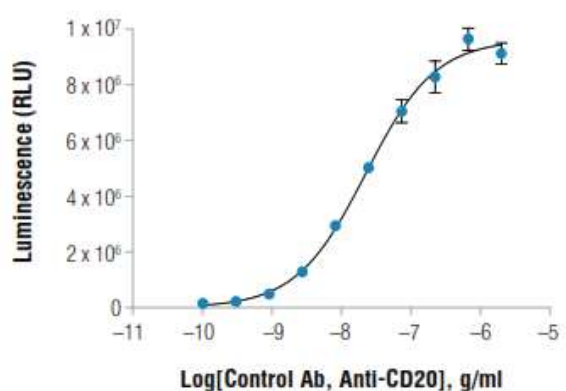
►► Multiplex Assays

Easily read multiplexed cell viability, apoptosis and cytotoxicity assays.



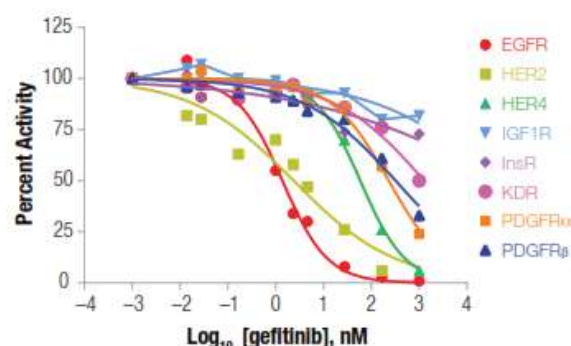
►► Assess Reporter Bioassays

Detect luminescence from ATL bioassays and evaluate mAb activity.



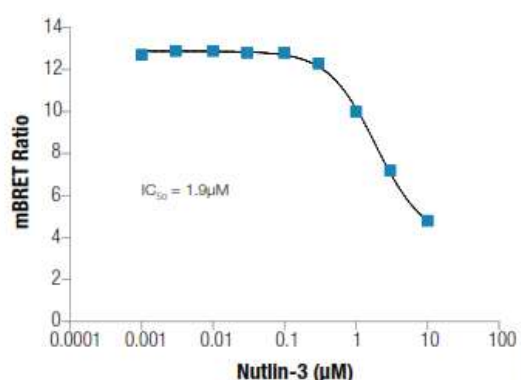
►► Screen Kinase Inhibitors

Efficiently read the output of kinase inhibitor screening and automatically analyze results.



►► Study Protein:Protein Interactions

Analyze the interaction of proteins using BRET.



►► Flexibility to Use Alone or as Part of an Automated Workflow

Discover and Explorer Detection Systems can be used on a bench top or integrated into your automated workflow for higher throughput and walk-away operation.

►► Automation Ready

Discover and Explorer Systems can be controlled by third-party scheduling software with liquid handling and plate stackers to give you complete, walk-away automation. The software is compatible, making integration device control simple

►► Navigator Specifications

►► Luminescence

- Low-noise PMT ensures collected light is not compromised
- 10 to 1,000 times more sensitive than competitor instruments
- No need to dilute samples or manage gain settings
- 2 to 3 logs more usable data than competing instruments
- Lower cross talk for more usable data

►► Luminescence Module Specifications

Detector	Top-reading, head-on photon counting photomultiplier tube (PMT)
Wavelength Range	350–700nm
Detection Limit	1.5×10^{-21} moles of luciferase
Linear Dynamic Range	9 logs
Cross talk	Less than 3×10^{-5} (white, 96-well plate, Corning 3912)

►► Injector System Specifications

Number of injectors (optional)	Two injectors
Dispense Volume Range	5–200µl in 1µl increments
Plate Compatibility	96-well plates
Waste Collection Tray Volume	Approximately 50ml
Void Volume	500µl

►► Discover and Explorer System Specifications

►► Luminescence

- Low-noise PMT ensures collected light is not compromised
- 10 to 1,000 times more sensitive than competitor instruments
- No need to dilute samples or manage gain settings
- 2 to 3 logs more usable data than competing instruments
- Filtered luminescence readout for BRET or multi-wavelength distinction or total luminescence
- Lower cross talk for more usable data
- Five filters included for BRET and filtered luminescence assays
- Or, customize all 5 luminescence filters to your needs

►► Luminescence Module Specifications

Detector	Top-reading, head-on photon counting photomultiplier tube (PMT)
Wavelength Range	350–700nm
Detection Limit	3×10^{-21} moles of luciferase
Linear Dynamic Range	9 logs
Cross talk	Less than 3×10^{-5} (white, 96-well plate, Corning 3912)
Filtered Luminescence	Discover: built-in filter paddle

►► Fluorescence

- Uses powerful wavelength-matched, light-emitting diodes (LED) as excitation sources
- LEDs closely match excitation profiles of commonly used fluorescent molecules to ensure high sensitivity
- Reduces nonspecific light leakage, a common problem when using broad-spectrum light sources
- Five excitation and emission filters included for common fluorescence assays; plus 1 customizable excitation and emission position
- Or, customize two fluorescence excitation positions or all 6 emission positions to your needs

►► Fluorescence Module Specifications

Detector	PIN-photodiode
Light Source	Wavelength-matched LED
Read Position	Top reading
Wavelengths selection	Filter module with 5 standard excitation and emission filters. Empty filter positions are available for custom excitation and emission wavelengths.
Wavelengths included	UV (Ex: 365nm, Em: 415–445nm) Blue (Ex: 475nm, Em: 500–550nm) Green (Ex: 525nm, Em: 580–640nm) Red (Ex: 625nm, Em: 660–720nm) AFC (Ex: 405nm, Em: 495–505nm)
Detection Limit	2fmol fluorescein/200μl
Linear Dynamic Range	>6 logs (assay dependent)

►► Absorbance

- Discover comes factory installed with 9 UV-Visible filters for common colorimetric assays
- Explorer GM3500 comes factory installed with 5 Visible Absorbance filters
- Ideal for ELISA, protein and nucleic acid assays

►► UV-Visible Absorbance Module Specifications

Detector	Top-reading, head-on photon counting photomultiplier tube (PMT)
Light Source	Xenon flash lamp
Spectra Range	200–600nm
Filter Wheel	Discover: 9 absorbance filters included Explorer: 5 absorbance filters
Wavelengths included	Discover: 230, 260, 280, 320, 405, 450, 490, 560 and 600nm 10nm bandwidth Explorer: 405, 450, 490, 560 and 600nm 10nm bandwidth
Detection Limit	0.1 O.D.
Dynamic Range	0–4.0 O.D.

HPLC Servicing, Validation, Trainings and Preventive Maintenance :

HPLC Servicing :HPLC Servicing : We have team of service engineers who can attend to any make of HPLC promptly @the most affordable cost.

Trainings :We also take up preventive Maintenance to reduce downtime of HPLC's Trainings.

AMC's/CMC :AMC's/CMC :We offer user training both in-House and at customer sites on HPLC principles, operations, trouble-shooting.

Validations :Validations :We have protocols for carrying out periodic Validations as per GLP/GMP/USFDA norms.

Instruments :Instruments :We offer instruments/Renting Services Modules like pumps,detector etc. on Rent.



About Analytical Technologies

Analytical Technologies is synonymous for offering technologies for doing analysis and is the Fastest Growing Global Brand having presence in at least 96 countries across the global. Analytical Technologies Limited is an ISO:9001 Certified Company engaged in Designing, Manufacturing, Marketing & providing Services for the Analytical, Chromatography, Spectroscopy, Bio Technology, Bio Medical, Clinical Diagnostics, Material Science & General Laboratory Instrumentation. Analytical Technologies, India has across the Country operations with at least 4 Regional Offices, 6 Branch Offices & Service Centers. Distributors & Channel partners worldwide.

Our Products & Technologies



UV/VIS
Spectro 2080+
Double Beam



Infra FTIR



Optima Gas
Chromatograph
3007



Optima Gas
Chromatograph
2979 Plus



Flash
Chromatograph



Atomic Absorption
Spectrophotometer



Liquid Particle
Counter



Optical Emission
Spectrophotometer



DSC/TGA



Semi Auto Bio
Chemistry Analyzer



HEMA 2062
Hematology
Analyzer



Micro Plate
Reader/Washer



URINOVA 2800
Urine Analyzer



Total Organic
Carbon 3800



Fully Automated
CLIA



NOVA-2100
Chemistry Analyzer



PCR/Gradient PCR/
RTPCR



TOC
Analyzer



Laser Particle
Size Analyzer



Ion Chromatograph



Water purification
system

Regulatory compliances



Corporate Social Responsibility

Analytical Foundation is a nonprofit organization (NGO) found for the purpose of:



Analytical Foundation

1. Research & Innovation Scientist's awards/QC Professional Award : Quality life is possible by innovation only and the innovation is possible by research only, hence ANALYTICAL FOUNDATION is committed to identify such personalities for their contributions across various field of Science and Technology and awarding them yearly. To participate for award, send us your details of research / testing / publication at Info@analyticalfoundation.org

2. Improving quality of life by offering YOGA Training courses, Work shops/Seminars etc.

3. ANALYTICAL FOUNDATION aims to DETOXYFY human minds,souls and body by means of yoga, Meditation, Ayurveda, Health Care, Awards, Media, Events, Camps etc.



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